HOMELITE

RE-8E

3-SPEED

RE–8E 3 SPEED WITH MOWER MFG. NO. 1690153

RE–8 3 Speed Mfg. No. 1690152
30" Rotary Mower Mfg. No. 1651030

Grass Catcher Mfg. No. 1600383
Counterweight Mfg. No. 1600351

OPERATOR'S MANUAL

FORM – 1654678
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751

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WARRANTY

We warrant this HOMELITE product to be free from defects in material or workmanship under normal use and service, except that we make no warranty, express or implied, with respect to tires, engines, generators or voltage regulators (which usually are warranted by their respective manufacturers) nor with respect to any unit which after sale by HOMELITE has been altered in any way without HOMELITE'S express consent.Our obligation under this warranty is limited to replacing, without charge any part which is proven defective within one year (30 days if the unit is used for commercial, rental or municipal purposes) from date of purchase, if returned to us, with transportation charges prepaid, at a HOMELITE branch office or to a dealer whom we have authorized to make the replacement.

THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, OF MERCHANT-ABILITY, FITNESS FOR A PARTICULAR PURPOSE, PERFORMANCE OR OTHERWISE AND IN NO EVENT SHALL HOMELITE BE LIABLE FOR ANY INCIDENTAL, SPECIAL OR CONSEQUENTIAL DAMAGES.

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SAFETY INSTRUCTIONS

TRAINING

1. Read the Operator's Manual carefully. Be thoroughly familiar with the controls and proper use of the equipment. On riding vehicles, know how to stop quickly.

2. Never allow children to operate a power mower or riding vehicle. Never allow adults to operate any equipment without proper instruction.

3. Keep the area of operation clear of all persons, particularly small children, and pets.

PREPARATION

1. Thoroughly inspect the area where the equipment is to be used and remove all stones, sticks, wire, bones and other foreign objects.

2. Check fuel before starting engine. Do not fill gasoline tank indoors, when engine is running, or while engine is still hot. Wipe off any spilled gasoline before starting engine. Do not run engine indoors.

3. Disengage power take-off (P.T.O.) before starting engine (motor).

4. Never attempt to make a mower adjustment while engine (motor) is running.

5. Mow only in daylight or in good artificial light.

6. Check battery water level and state of charge.

OPERATION

1. Do not change engine governor settings or over-speed engine.

2. Do not put hands or feet near or under rotating parts. Keep clear of discharge opening at all times.

3. Stop blade (s) when crossing gravel drive, walks or roads.

4. After striking a foreign object, stop the engine (motor), remove wire from spark plug, thoroughly inspect the mower for any damage, and repair the damage before restarting and operating the mower.

5. If the equipment should start to vibrate abnormally, stop the engine (motor) and check immediately for the cause. Vibration is generally a warning of trouble.

6. Stop engine (motor) whenever you leave the equipment, before cleaning mower housing, and when making any repairs on inspections.

7. Take all possible precautions when leaving vehicle unattended; such as disengaging power take-off, lowering attachments, shifting into neutral, setting parking brake, stopping engine and removing key.

8. When cleaning, repairing or inspecting, make certain blade and all moving parts have stopped. Disconnect spark plug wire and keep wire away from plug to prevent accidental starting.

9. Do not run engine indoors.

10. Shut engine (motor) off and wait until blade comes to complete stop before removing grass catcher and/or un - clogging chute.

11. Mow up and down slopes. Exercise extreme caution when changing direction on slopes. Do not mow excessively steep slopes (greater than 40% grade).

12. Always bring the unit to a complete stop before cleaning, repairing and adjusting.

13. Never operate mower without proper guards, plates or other safety protective devices in place.

14. Stay alert for holes in terrain and other hidden hazards.

15. On riding vehicles, use care when pulling loads or using heavy equipment.

   A. Use only approved drawbar hitch points.
   B. Limit loads to those you can safely control.
   C. Do not turn sharply. Use care when backing.
   D. Use counterweight(s) or wheel weights when suggested in operator's manual.

16. Watch out for traffic when crossing or near roadways.

17. Never direct discharge of material toward bystanders nor allow anyone near vehicle while in operation.

MAINTENANCE AND STORAGE

1. On riding vehicles, disengage power to attachments and stop engine (motor) before leaving operator's position, making any repairs or adjustments, when transporting, or when not in use.

2. Check blade and engine mounting bolts at frequent intervals for proper tightness.

3. Keep all nuts, bolts, and screws tight to be sure equipment is in safe working condition.

4. Never store equipment with gasoline in the tank inside of a building where fumes may reach an open flame or spark. Allow engine to cool before storing in any enclosure.

5. To reduce fire hazard keep engine free of grass, leaves or excessive grease.

6. Check grass catcher bags frequently for wear or deterioration. Replace with new bags for safety protection.

REQUIRED ACCESSORIES

When mowing across slopes greater than 40%, use two rear wheel weights. When using a rear mounted grass catcher and mowing across slopes of 15 to 30%, use a front counterweight.

OPERATION

PREPARING

1. See Figure 1. The seat has three sitting positions. To adjust for a comfortable position, tilt the seat forward and slide studs into desired groove. Slot nuts should be adjusted to allow free movement of seat assembly.

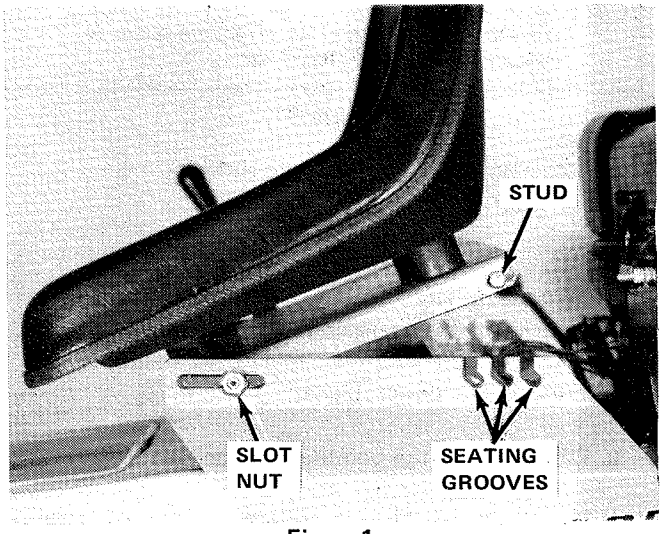


Figure 1.

2. Familiarize yourself with the following control operations:

a. See Figure 2. Clutch and Brake Foot Pedal. Push pedal down to declutch and apply brake simultaneously. Vehicle may be stopped by depressing clutch-brake pedal.

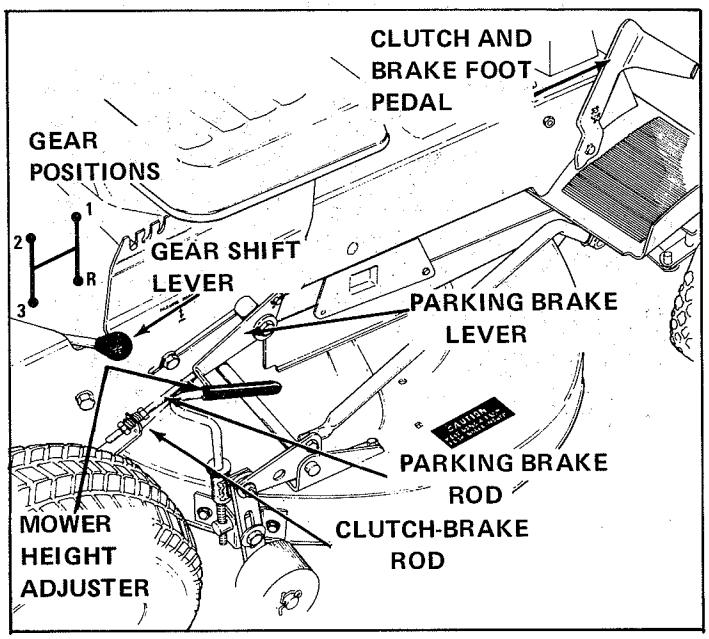


Figure 2.

b. See Figure 3. Throttle Lever. Move lever FORWARD to increase speed or choke engine and toward REAR to slow speed. Mowing should be done at 3/4 to full throttle.

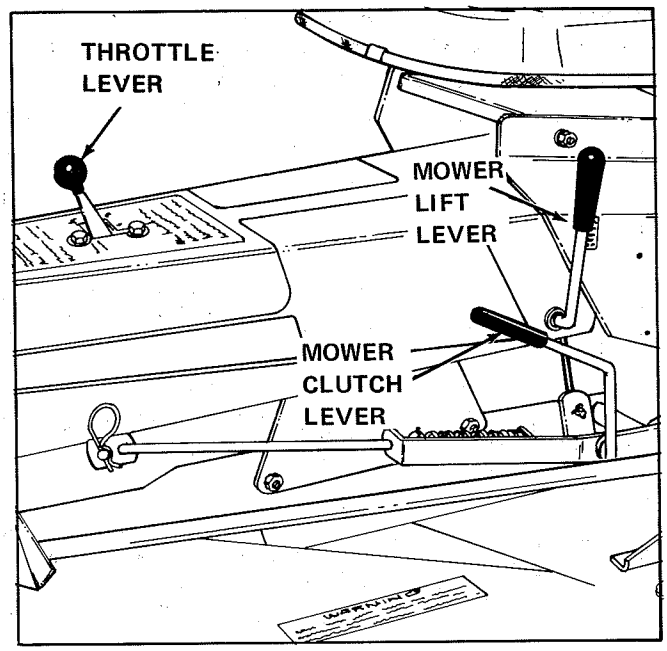


Figure 3.

c. See Figure 2. Mower Height Adjuster. The height adjusting handle raises and lowers the mower at both front and rear. Turn handle CLOCKWISE to raise, COUNTER-CLOCKWISE to lower.

d. See Figure 2. Gear Shift Lever. Depress clutch and brake foot pedal and place the shift lever in the desired position. (See diagram next to throttle lever). The upper positions places the transmission in FIRST or SECOND gear, the middle position in NEUTRAL, and the lower positions in REVERSE or THIRD gear. The gear shift lever must be in NEUTRAL when starting.

e. See Figure 3. Mower Clutch Lever. When mower is engaged, the clutch lever is FORWARD and DOWN. The engine should be running 3/4 to full speed when the mower drive is engaged. Mower clutch lever must be disengaged before starting engine.

f. See Figure 2. Parking Brake. To apply parking brake, push lever DOWN.

g. See Figure 3. Mower Lift Lever. To lift mower from ground, pull mower lift lever BACK and UP.

3. Before attempting to start the engine, read the engine operator's manual thoroughly. Be sure to have on hand sufficient quantities of "Regular" grade gasoline and 10W-30 weight, MS motor oil.

4. See Figure 4. Remove the engine crankcase filler cap and gauge. Fill the crankcase with 10W-30 weight, MS oil until level reads full on gauge. Crankcase capacity is 2-1/4 pints. Check oil level every time fuel is added. Use caution not to overfill engine crankcase with oil.

5. See Figure 4. Remove the fuel tank filler cap and fill the tank completely with clean, fresh "Regular" grade gasoline. Use a can with a flexible spout.

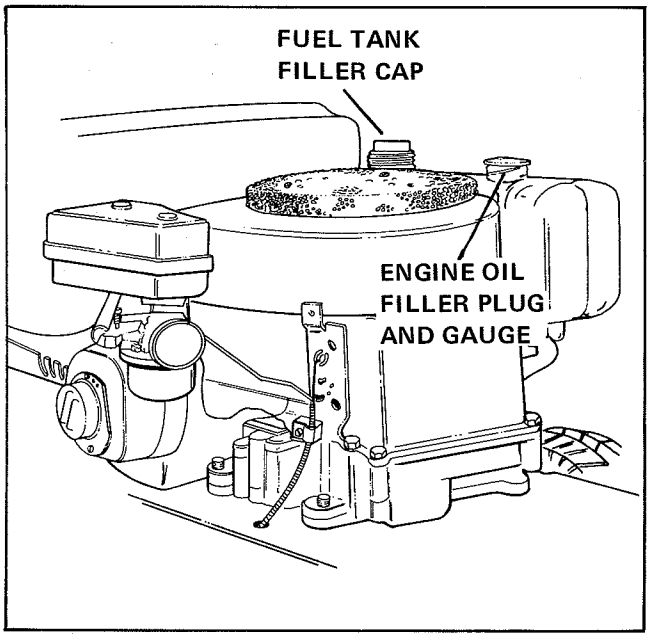


Figure 4.

CAUTION

DO NOT MIX OIL WITH GASOLINE.

WARNING

GASOLINE IS HIGHLY INFLAMMABLE. AVOID OVERFILLING AND WIPE UP ANY SPILLED FUEL. ALLOW NO OPEN FLAME, SMOKING OR MATCHES NEAR THE AREA WHEN REFUELING.

Replace the filler cap securely. Store gasoline in small quantities. Prolonged storage produces harmful gum and deposits. If it is necessary to store gasoline for prolonged periods, add a gasoline stabilizer, available at your dealer. (See Storage.)

6. Check tire pressure. Front tires should be 22 to 25 psi and rear tires 10 psi.

7. Check lubrication. (See MAINTENANCE).

8. Adjust mower front-to-rear pitch as follows:

NOTE

This adjustment is not necessary to perform for each start-up, merely a check of blade tip-to-ground distance is necessary and adjustments made accordingly.

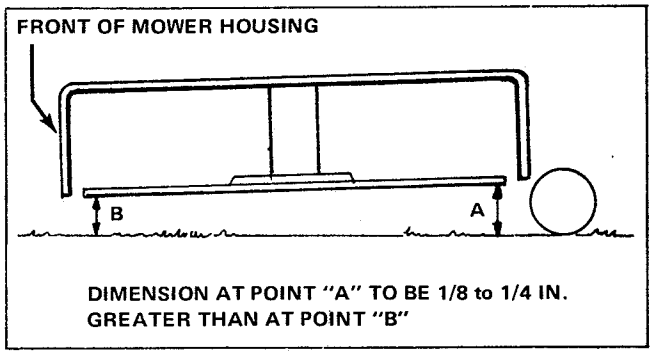


Figure 5.

a. Move mower to a flat, smooth surface.

CAUTION

Be sure engine is not running, transmission is in neutral and mower drive is disengaged (clutch lever up). Block the wheels, front and rear, to prevent rolling while working on the mower blade.

b. Position blade tips pointing front to rear.

c. See Figure 5. Measure distance from blade tips to ground. Dimension at point "A" must be equal to or 1/8 to 1/4-inch greater than at point "B".

d. See Figure 6. To obtain the above blade setting, remove the eyebolts from both sides of the bracket loosen locknut and adjust turnbuckle until the blade obtains the desired setting. Tighten locknut and secure eyebolt on bracket.

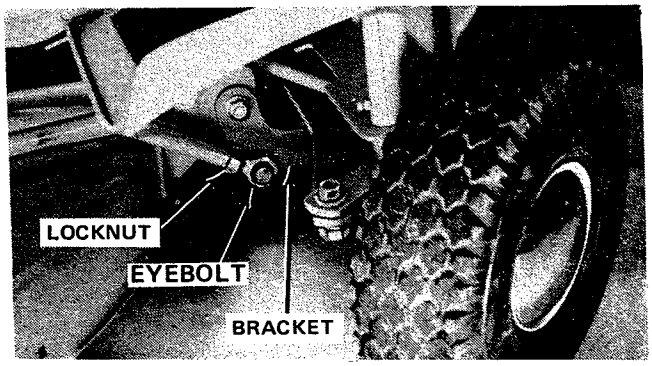


Figure 6.

9. Familiarize yourself with the following operating procedures.

OPERATING VEHICLE

1. Place the controls in the following positions:

   a. See Figure 7. Throttle lever completely FORWARD. (to choke position).

   b. See Figure 3. Mower clutch lever UP (disengaged).

   c. Gear shift lever in NEUTRAL position.

2. See Figure 7. Insert ignition key and turn clockwise unti starter actuates.

NOTE

If gear shift lever is in GEAR or mower clutch lever is DOWN (engaged), the engine will not start.

3. When engine starts, release key and move throttle lever slightly rearward so engine is no longer choked.

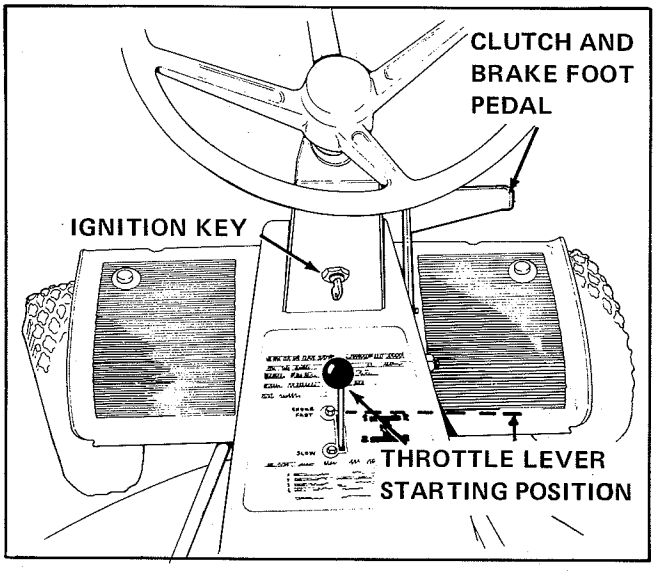


Figure 7.

4. See Figure 2. Depress the clutch-brake pedal. This disengages the transmission for shifting and applies the brake at the same time.

5. See Figure 2. Have the front wheels centered straight ahead and hold the steering wheel with one hand. Move the gear shift lever into gear desired.

NOTE

At engine RPM of 3400 (full throttle), first gear will attain a vehicle speed of 1.05 MPH, second gear 2.73 MPH, third gear 4.25 MPH, and reverse gear 4.25 MPH. (RPM denotes revolutions per minute and MPH denotes miles-per-hour).

6. See Figure 2. Slowly release clutch foot pedal until vehicle begins moving.

7. Drive on level ground until you get the "Feel" of the machine. To stop forward or rearward motion, depress clutch pedal. Try slower throttle settings, shift gears, practice steering and handling in forward and reverse until you are ready to start mowing.

CAUTION

Do not shift from one gear to another without first completely stopping the vehicle.

8. See Figure 7. To stop, depress clutch pedal and put gear shift in NEUTRAL. Move throttle lever back to SLOW. Turn ignition key counter-clockwise to OFF position and remove key to prevent un-authorized starting.

OPERATING VEHICLE AND MOWER

1. Check mower cutting height and adjust accordingly (See PREPARING).

2. Start engine, (See Operating Vehicle). Set throttle lever at 3/4 to full speed.

3. Engage mower by pushing mower clutch lever down.

4. Operate vehicle with mower as instructed in Operating Vehicle section of this manual and the following:

   a. For the first use of the mower, choose a smooth, level area. Cut long, straight strips overlapping slightly. After getting used to the operation, proceed to inclines or rough ground.

   b. Guide the right side of the mower along trees, posts or other obstacles and follow the contour as closely as possible.

   c. DISPERSAL: If the clippings are to remain on the lawn, mow with the discharge side toward the area already cut. If the clippings will be raked up later and the grass is at a normal height of 3 inches or less, it is practical to disperse the clippings into the un-cut area. There they will be concentrated in the center of the lawn for minimum raking.

   d. WET, THICK OR HEAVY GRASS: Start at the outer edge of the area and mow clockwise so that clippings are always deposited on cut grass. Less engine power is required and a more even cut free of streaks will result.

e. HEIGHT SETTING: On thick or springy grass, do not set the cutting height too low. The wheels may sink into the lawn, resulting in too short a cut. (See Adjustments.)

f. For best appearance, new grass should be cut in the afternoon or evening when it is free of moisture.

g. See Figure 8. Change patterns occasionally to eliminate matting, graining and a corrugated appearance.

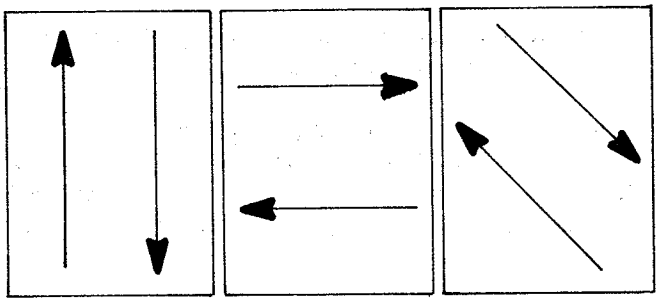


Figure 8.

CAUTION

If you feel severe vibration when mowing, the blade is unbalanced. Have it balanced before further use. (See MAINTENANCE).

ADJUSTMENTS

WARNING

If vehicle is placed on end for over a 2 hour period, the battery must be removed and the fuel tank drained.

CUTTING HEIGHT

1. See Figure 2. Raise or lower entire mower by twisting height adjustment handle until front of blade is at desired cutting height. Turn adjustment handle clockwise to raise or counterclockwise to lower blade.

2. Most lawns should be mowed to keep the height of the grass approximately 2-inches high. Under dry conditions, it should be allowed to grow higher. To keep a green lawn, NEVER mow more than one-third off the height of the grass. or a maximum of 1-inch in one mowing. For extremely tall grass, set the cutting height at MAXIMUM for the first mowing, then reset to the desired height and mow again.

3. The 30-inch mower is designed to cut grass at a height of 1-1/2 to 3-1/2-inches. Best results are obtained by cutting often and not too short. Allow the grass to grow to 3-inches then cut off only the top 1-inch.

MOWER CLUTCH LEVER

NOTE

Adjustment of mower clutch lever is to be made after mower attached to vehicle

See Figure 9. When mower clutch lever is engaged (lever down), there should be approximately 3/4-inch clearance between clutch rod set collar and upper leg of rod bracket. If adjustment is necessary, disengage mower clutch lever, loosen collar setscrew and adjust collar position accordingly. Then retighten setscrew and repeat check.

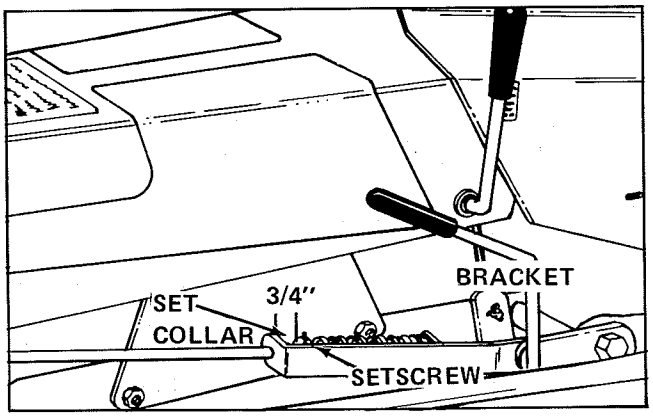


Figure 9.

POWER TAKE-OFF (PTO) BELT GUIDES

1. See Figure 10. Belt guides should be installed so that the indicated edges of the guide and mounting bracket are parallel.

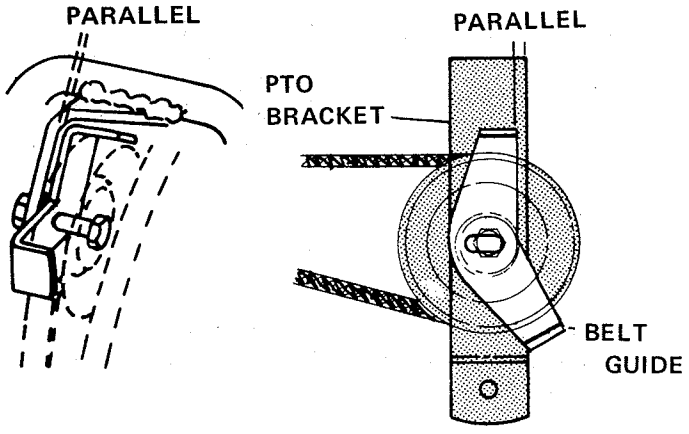


Figure 10.

2. See Figure 10. The belt guide is slotted for ease of belt removal, and when installed on the unit, it should be pushed all the way to the rear of the tractor.

BRAKE

NOTE

Clutching and braking functions are made simultaneously as the clutch pedal is depressed.

1. The clutch brake rod (Figure 2) moves forward, as the pedal is depressed, and engages a clutch brake control bracket, which pulls upon a brake band and activates the brake. The distance from a clutch-brake adjusting nut at the end of the clutch brake rod to the bracket (See Figure 11) allows for free clutch pedal travel. This adjustment should tighten brake band on drum when clutch pedal is depressed two-thirds of its total travel. If band does not tighten sufficiently, readjust adjusting nut as follows referring to Figure 11:

a. Turn the nut (A), until it is to the end of the threaded portion of the rod.

b. Engage the parking brake lever and tighten the nut (B), until the spring is collapsed.

c. With the parking brake lever engaged, adjust the nut (C), to give 1 to 1-1/4-inches between the flat washer and brake band frame.

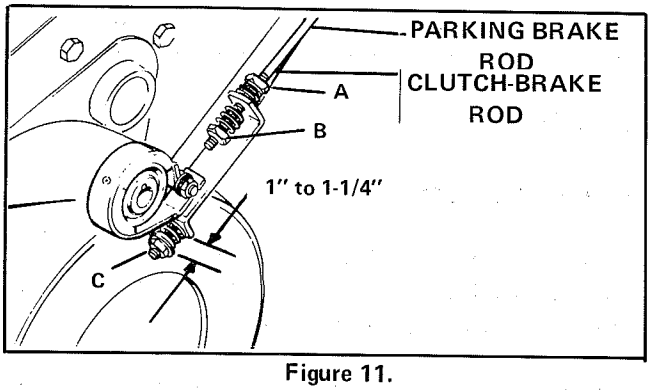


Figure 11.

2. See Figure 2. The opposite end of the brake control bracket is secured to a parking brake rod that is controlled by a parking brake lever on the right side of the vehicle, below the operator's seat. When the brake lever is pushed downward, the rod and control bracket move forward, tightening the brake band. The parking brake adjusting nuts must be adjusted on the brake control bracket so that the front spring is compressed solid when the brake lever is engaged as shown in Figure 2.

CLUTCH

1. See Figure 12. Clutching occurs whenever the clutch pedal is depressed, the idler arm assembly moves rearward, and belt tension is released on the idler belt.

2. See Figure 12. Clutching adjustment is accomplished by loosening the setscrew on the clutch rod, moving the set collar against or away from the compression spring, and retightening the setscrew. Clutching should occur when the clutch pedal is approximately 1/2 its travel distance. If clutching occurs before this, the set collar should be moved away from the compression spring at approximately 1/4-inch increments until clutch pedal is 1/2 its travel distance. If clutching occurs when the pedal is almost completely down, the set collar should be moved in against the compression spring at 1/4-inch increments until the clutch pedal is 1/2 its travel distance.

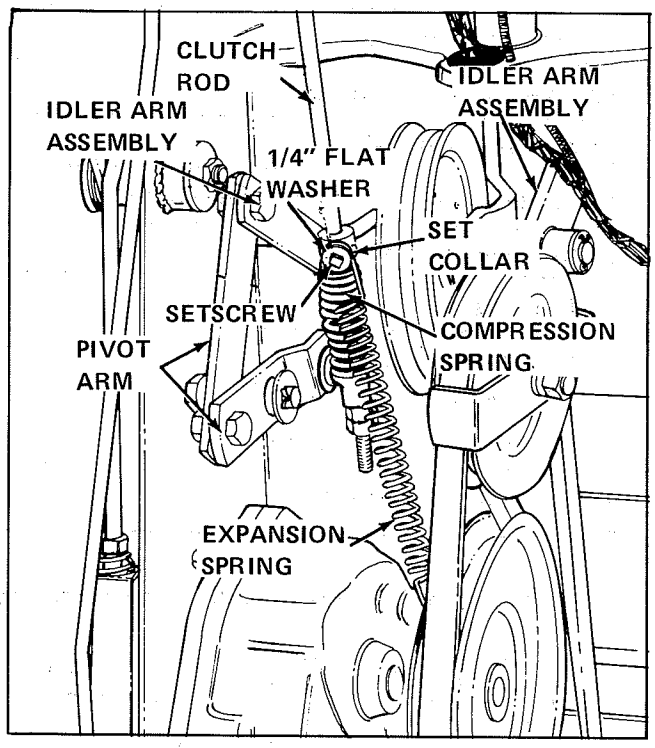


Figure 12.

MAINTENANCE

ENGINE OIL

1. See Figure 13. Check the engine oil level when fuel is added or every five operating hours. Change oil every 20 operating hours using 2-1/4 pints of 10W-30 weight motor oil.

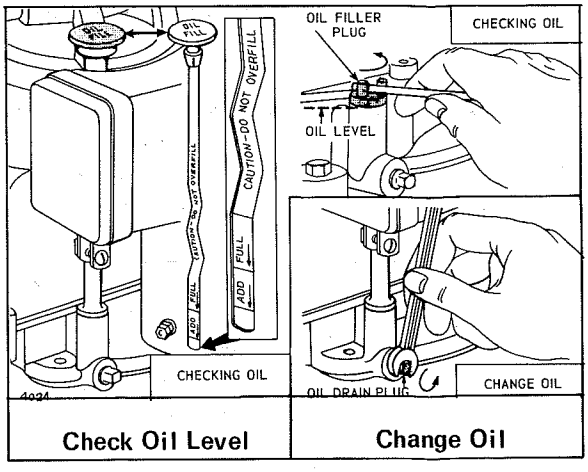
NOTE

Pay attention to "Service Designation" stamped on the top of each can of oil you intend using in your engine. Use oil labeled MS (Motor Severe), but do not use ML or MM labels as they do not contain sufficient additives for proper protection.

SCHEDULED MAINTENANCE CHART

Service Required	After each cycle of indicated operating hours				
	5	10	20	100	200
Inspect the tractor and engine	●				
Check engine crankcase oil level	●				
Check transmission oil level		●			
Check battery solution level*		●			
Check tire pressure		●			
Lubricate grease fittings*		●			
Clean air cleaner element*			●		
Change engine oil* (First change 5 hours)			●		
Check belt tension			●		
Oil points				●	
Clean spark plugs and reset gap at 0.030-inch				●	
Replace air cleaner element*					●
Change transmission oil					●

*More often under dusty and/or hot weather operating conditions.



Check Oil Level | Change Oil

Figure 13.

2. See Figure 13. Crankcase oil should be drained when engine is warm. Place suitable container under oil drain plug and remove plug. Allow oil to drain completely, then replace drain plug. Fill crankcase through cap and gauge hole.

TRANSMISSION OIL

1. Check transmission oil every 10 hours of operation. Transmission oil can be checked with the vehicle on all four wheels or standing upright on its rear.

See Figure 14. To check level when vehicle on all four wheels, remove fill and drain plug (B). To check level when vehicle upright, remove fill and drain plug (A).

CAUTION

If vehicle placed in upright position longer than two hours, remove battery from vehicle to avoid leakage.

2. Operate vehicle for 1/2 hour to warm transmission oil before draining. Remove lower plug, allowing oil to drain into a suitable container.

3. To add transmission oil, install lower plug and add 2-1/2 pints of oil through top plug opening.

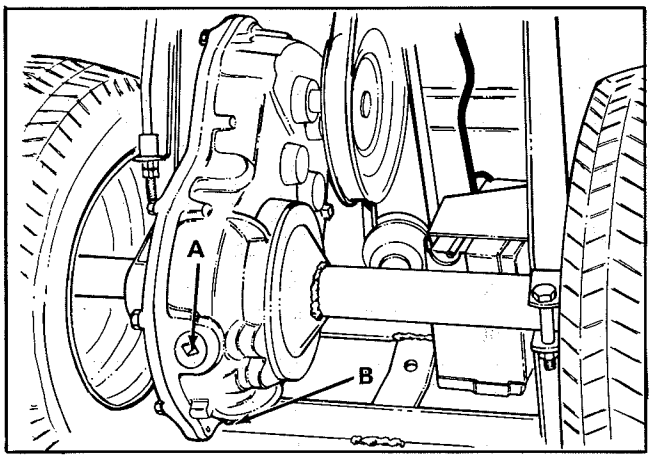


Figure 14.

BATTERY

1. Battery solution level should be checked every 10 hours and distilled water added to retain level as designated on the battery. Always add distilled water before charging battery.

2. A hydrometer test of battery solution should be made monthly or more often in warmer weather. If specific gravity tests 1.225 or less in any cell, the battery should be recharged. Do not exceed 1.3 amperes charging rate.

3. Remove battery as follows:

a. Open battery cover at rear of vehicle and remove rubber strap holding battery in support.

b. See Figure 15. Slide battery from support and, if necessary to recharge or replace, remove battery cables from terminals.

WARNING

TO AVOID ACCIDENTAL SPARKS, DISCONNECT NEGATIVE (–) GROUND CABLE FIRST AND CONNECT IT TO BATTERY LAST.

c. Place battery in clean, level location.

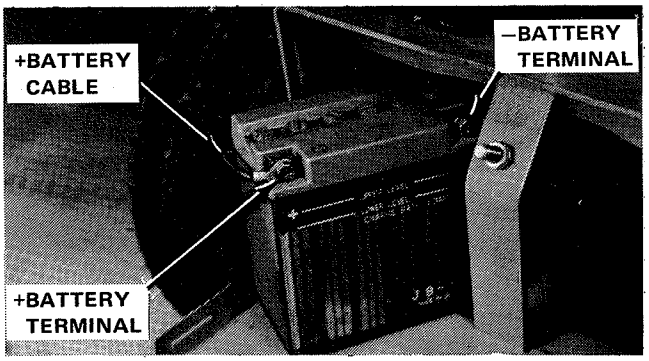


Figure 15.

4. Install battery in reverse order of removal. Secure it in support with rubber strap. If the overflow drain hose is pinched under the battery during installation, move the hose clamp to the right front corner of the battery. See Figure 16. Hose must not be blocked and be 1/8-inch from bottom of battery.

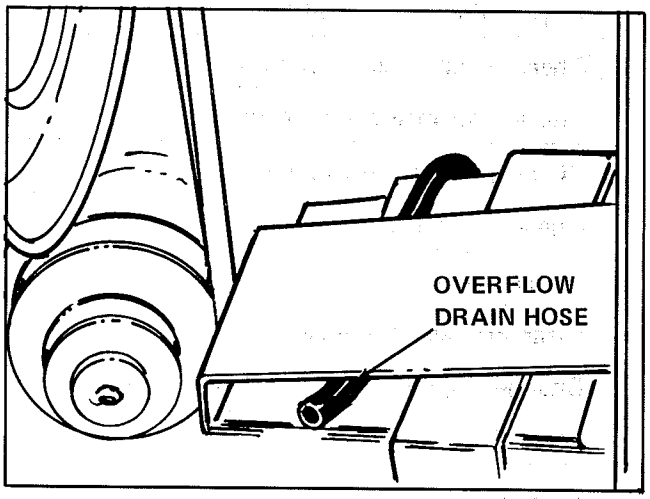


Figure 16.

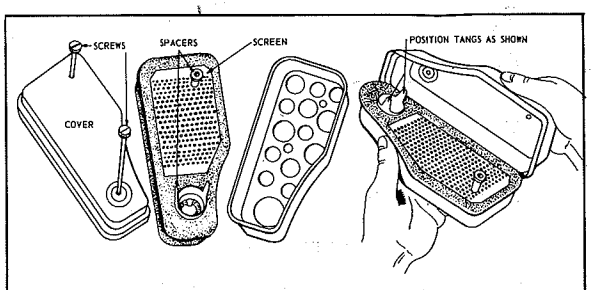
TIRES

Check tire condition and inflation pressure every 10 hours. Replace worn tires. Rear tire pressure should be 10 psi and front tire pressure 22 to 25 psi.

AIR CLEANER

1. See Figure 17. Service air cleaner every 20 operating hours or, if operating under extremely dusty conditions, 5-10 operating hours.

2. Remove air cleaner cover and wash foam air cleaner element in gasoline, squeezing several times.
dry thoroughly and saturate it with clean engine oil. Squeeze several times to remove excess oil and re-install.



Cleaning Air Cleaner

Figure 17.

BELTS (See Figure 18)

1. If either transmission or mower V-belts are worn or damaged, the belt should be replaced.

2. Transmission Belt Replacement

a. Remove mower (See Mower Repair).

b. Tie clutch pedal in down position.

c. Set tractor up on back cover.

CAUTION

IF TRACTOR IN UPRIGHT POSITION LONGER THAN TWO HOURS, REMOVE BATTERY FROM VEHICLE TO AVOID LEAKAGE.

d. Note locations of transmission belt on pulleys and remove belt.

e. Install new belt.

f. Set tractor back on all four wheels and release clutch pedal.

g Run tractor for several minutes to properly seat belt in pulley grooves.

h. Adjust clutch travel (See Adjustment).

i. Install mower (See Mower Repair)

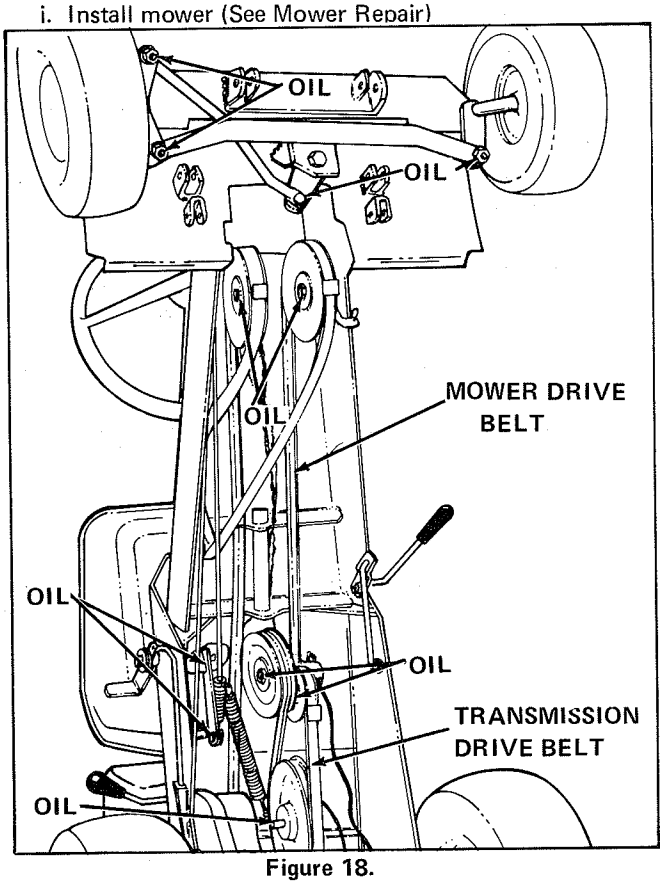


Figure 18.

3. Mower Belt Replacement.

a. Remove mower (See Mower Repair).

b. Set tractor up on back cover.

CAUTION

IF TRACTOR IN UPRIGHT POSITION LONGER THAN TWO HOURS, REMOVE BATTERY FROM VEHICLE TO AVOID LEAKAGE.

c. See Figure 10. Loosen PTO belt guide and pulley mounting nuts and position guide so fingers allow for belt removal. Remove belt from PTO pulleys.

d. Remove transmission belt (See Transmission Belt Replacement).

e. Remove mower belt from the larger, upper engine pulley. Remove belt from tractor.

f. Install new belt in reverse order of removal. Correctly position belt guides (See Adjustments).

g. Set tractor back on all four wheels.

h. Run tractor for 30 minutes to properly seat belt in pulley grooves.

i. Adjust PTO clutch lever (See Adjustments).

LUBRICATION

1. See Figure 19. Grease wheel fittings every 10 operating hours with lithium-based No. 2 automotive grease. Remove all dirt, grit and paint from fittings before application.

2. Apply light engine oil every 100 operating hours to all points specified in Figures 18, 19 and 20 except tie rod and draglink pivots. Apply a 10W-30 or heavier motor oil to tie rod and draglink pivots (See Figure 18).

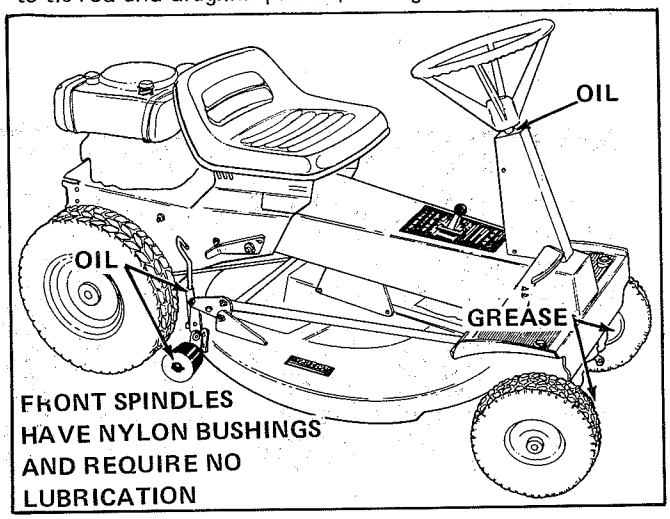


Figure 19.

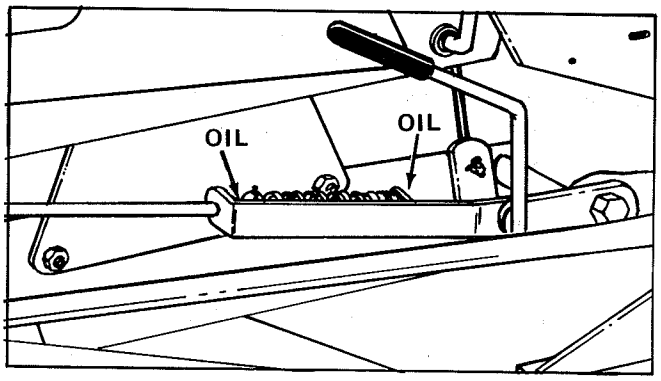


Figure 20.

SPARK PLUG

Clean and regap spark plug every 100 operating hours. Do not clean plug by sandblasting as this process leaves a residue of grit in the plug, which can cause engine damage. Clean the plug with solvents, scraping or using a wire brush. Gap to 0.030 of an inch. Discard plug if it cannot be cleaned adequately or if plug is old and worn.

MOWER REPAIR

1. Removal

a. See Figure 21. Disengage mower clutch lever by moving it as far rearward as possible. Disengage mower lift lever by moving it forward and down. Remove cotter pin from mower lift rod and remove lift rod from link.

b. See Figure 21. Remove hairpin clip and mower adjusting rod from mower idler pulley bracket.

c. See Figure 21. Lifting deflector, disengage mower drive belt from mower pulley. To separate belt from pulley, it may be necessary to move entire mower forward slightly.

d. See Figure 22. Supporting front end of mower, remove two hairpin clips and pins attaching front of mower to vehicle. Slowly lower mower and slide it out from under vehicle.

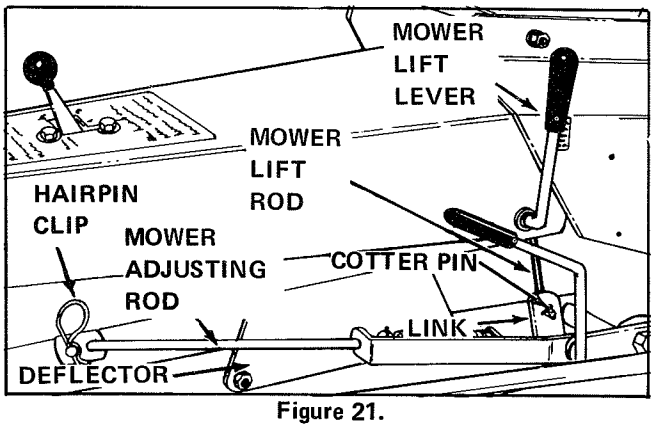


Figure 21.

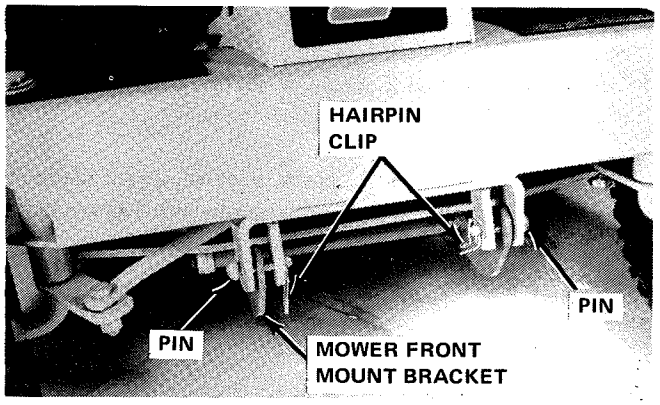


Figure 22.

2. Cleaning and Inspection.

a. Clean all grass clippings and material from housing. Clean blade and arbor.

b. Rotate blade by hand to see if ends are level with each other. Inspect blade for nicks or grooves.

c. Inspect drive belt for wear or age.

3. Repair.

a. Remove small nicks from blade with file or stone. Do not file excessively or blade will require rebalancing. Deep nicks in blade cutting edge will require grinding and subsequent rebalancing (See Blade Replacement for blade removal procedures).

b. Securely tighten all mower and guard attaching parts.

4. Blade Replacement. (See Figure 23).

a. Using a wooden block, several layers of folded cloth or a leather glove, hold one end of blade while removing both capscrews and shoulder washers attaching blade to arbor.

b. To sharpen blade, clamp it in a vise and use a 10 inch file along original bevel. File to a razor edge.

c. To balance blade. insert a knife blade or small rod through center hole and observe if both ends balance evenly. Refile heavy side if required.

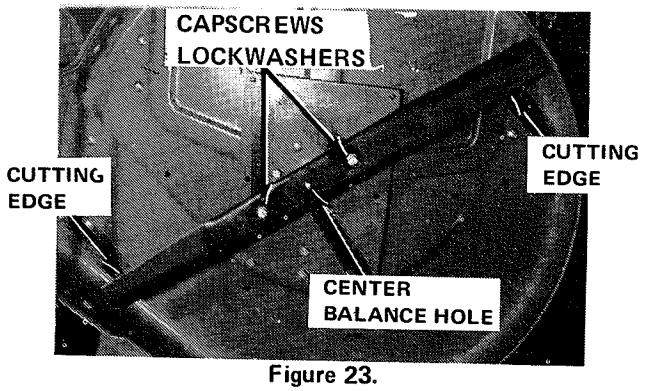


Figure 23.

WARNING

ALWAYS HANDLE BLADE WITH CARE TO AVOID INJURY.

d. Using wooden block, cloth or glove, install blade on mower, beveled side of cutting edge upward. Tighten blade mounting capscrews to 37-47 ft. lbs. torque.

e. Slowly rotate blade by hand to see if it clears housing and tips are running true.

5. Mower Drive Belt Replacement.

Refer to BELTS for mower drive belt removal and installation, if requred.

6. Installation.

Install mower in reverse order of removal.

7. Adjustment and Operation

Refer to the applicable section of this manual.

8. Arbor Shaft and Sleeve Damage.

If the mower is properly adjusted and in apparent good condition, but seems to require excess engine power, it may be that the arbor shaft or sleeve have been damaged by hitting an obstruction. Check the blade drive system. The blade should turn easily with the belt removed. If it does not, the unit is robbing power from the engine. Tight bearings and a bent arbor shaft or tube should be repaired or replaced.

OFF–SEASON STORAGE

1. Drain the fuel tank completely by running the engine until it stops. If desired, fuel can be stored in containers or in the tank by using a gasoline stabilizer, available at your dealer. Follow the directions on the stabilizer container. This additive prevents formation of gum and varnish for up to one year, providing easier starting and a clean fuel system.

2. Drain and refill crankcase while engine is warm. (See MAINTENANCE section of this manual).

3. Remove spark plug, pour 1 oz. 10W-30 oil into cylinder through plug hole. Crank engine a few times to distribute oil. Reinstall plug.

4. Clean dirt and chaff from cylinder head fins and engine housing.

5. Apply grease to all fittings and light engine oil to all points listed in (See MAINTENANCE section of this manual.)

6. Block the machine up off the wheels to relieve weight and keep tires off a damp floor. Protect the tires from prolonged exposure to direct sunlight.

7. Store the machine in a dry place indoors.

8. STARTING AFTER STORAGE

a. Remove the spark plug and wipe it dry. Crank the engine a few times to blow the excess oil out the plug hole, then reinstall the plug.

b. Fill the fuel tank completely with fresh "Regular" gasoline.

c. Service the air cleaner. (See MAINTENANCE).

d. Check the crankcase oil level and replenish if necessary (See MAINTENANCE section of this manual).

e. Start the engine and let it run slowly. DO NOT run at high speed immediately after starting. Run the machine outdoors or in a well-ventilated area.

f. Inflate the tires to proper operating pressure. The front tires should be 22-25 psi and the rear 10 psi.

TROUBLESHOOTING

If a specific problem and remedy is not covered herein, proceed to isolate the system in which the problem occurs and then locate the defective part. The greater the number of symptoms of problems, the easier the remedy will be.

PROBLEM	PROBABLE CAUSE	REMEDY
Engine fails to crank	Defective battery. Defective ignition system. Gear shift lever in 1,2,3 or R Mower clutch lever down in engaged position.	Charge, then replace if not hold charge. Refer to servicing dealer. Move lever to NEUTRAL Move mower clutch lever up to disengaged position.
Engine cranks but fails to start.	Throttle lever not completely forward. Spark plug cable disconnected. No gasoline at carburetor.	Push lever forward. Connect spark plug cable. Clean fuel lines and vent holes. Check fuel level.
Belt slippage.	Belts excessively worn. Pulleys greasy or oily. Broken or worn belt tension spring. Belt not adjusted properly.	Replace belts. Clean pulleys. Replace spring. Adjust (See Adjustments)
Drive belts jump pulley.	Too much belt slack. Belt stops out of position.	Tighten belt (See Adjustments) Position stops (See Adjustments)
Belt breaks.	Sharp edges and rough spots on pulleys. Pulleys misaligned. Belt tension too tight. Old belt.	File sharp edges or replace pulley if excessively damaged. Remove pulley and check alignment. Relieve tension. Replace.

TROUBLESHOOTING (Cont'd.)

PROBLEM	PROBABLE CAUSE	REMEDY
Difficult handling	Controls or drive systems out of adjustment.	Adjust
	Tires under inflated.	Inflate front tires 22-25 psi. Rear tires 10 psi.
Wheels spinning on slopes.	Wet grass.	Allow grass to dry sufficiently.
	Surface too steep	Add wheel weights for added traction.
Uneven cut.	Mower not adjusted properly.	Adjust (See Adjustments)
	Mower housing bent or damaged.	Repair or replace if excessively damaged.
	Blade arbor tube bent.	Straighten or replace if unusually bent.
Poor or rough cut.	Mower not leveled.	Level mower (See Adjustments)
	Blade dull.	Sharpen blade.
	Drive belt slipping.	Tighten belt by adjusting mower clutch lever (See Adjustments)
	Mower not adjusted properly.	Adjust (See Adjustments)
	Engine speed too low	Run at 3/4 to full throttle.
Vibrations	Arbor shaft or tube (or both) bent.	Straighten or replace.
	Blade unbalanced.	Replace blade.
	Drive pulley damaged or misaligned	Replace damaged pulley. Realign as required.
Excessive play in steering.	Loose capscrews or worn bushings.	Tighten attaching hardware. Replace bushings.

SPECIFICATIONS

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE

ENGINE

Make	Briggs & Stratton
Model No.	190707
Type	0883-01
Horsepower	8 @ 3600 rpm (Engine Mfg. Rating)
Cycles	4
Cylinders	1
Bore	3 inches
Stroke	2-3/4 inches
Displacement	19.44 Cu. In.
Crankshaft	Vertical
Starter	Automatic Rewind or Electric
Ignition	Magneto
Governor	Adjustable Mechanical Type 1800 - 3400 range
Air Cleaner	Sealed Housing, Reusable Oiled Foam Element
Choke	Chokematic
Crankcase	Lubrication: Gear Impeller System Oil Capacity; 2-1/4 pints
Fuel Capacity	3 quarts
Muffler	Quiet Rear Discharge

TRANSMISSION

Type	3- Speed	
Speeds	3 Forward, Reverse	
Speed Range (at 3400 rpm)	Forward	Reverse
	1 - 1.05	4.25
	2 - 2.73	
	3 - 4.24	
Differential	Type: All gear, fully enclosed and lubricated.	

ROTARY MOWER

Mounting	Suspended from and Tilts with Front Axle
Width of cut (Blade)	30 inches
Height of cut	1-1/2 to 3-1/2 inches
Drive	Cushioning V-Belt with Lever Control
Adjustment	Stepless Screw Controls Front and Rear Height
Spindles	Sealed Rolling Contact Bearing Mounted
Rear Support	Three Rollers, 2 at 2 inch, 1 at 3-15/16 Inches wide
Housing	Drawn steel, Height above blade in clipping channel area increases from 2-1/2 to 4-1/8 inches above blade.

CHASSIS

Frame	Heavy Gauge Steel-Front and Rear U-Channel
Rear Tires	Inflation Pressure: 10 psi Size: 16.00/6/50 x 8 Turf Tread Tread Width: 28 inches

CHASSIS (continued)	
Front Tires	Pneumatic, Inflation Pressure: 22 to 25 psi Size: 4.10/3.50 x 4 Turf Tread Bearings: Powdered Iron with Grease Fittings Tread Width: 28 Inches
Seat	Type: Bucket, Rubber Mounted Cover: Leatherette on bonded foam
Turning Radius	Inside Rear Tire: 22 Inches
Stability	For Increased stability and traction, install rear wheel weights.

CONTROLS	
Steering	Control: Steering Wheel Type System: 3.81 to 1 Ratio
Clutch and Brake Pedal	Location: Right Front Clutch: Soft Action, Touch-O-Matic, V-Belt Brake: Foot Operated Band Type
Gear Selector	Location: Right side of seat
Mower Clutch	Location: Left side of seat
Throttle Control	Location: Front center of seat
Starter	Location: Electric: Key on steering column has automatic choke

DIMENSIONS	
Overall Length	57-3/4 Inches
Overall Width	Without Mower 28-1/4 Inches With 30 Inch Mower and Safety Shield: 40-1/4 Inches
Wheel Base	44-3/4 Inches

PARTS LISTINGS
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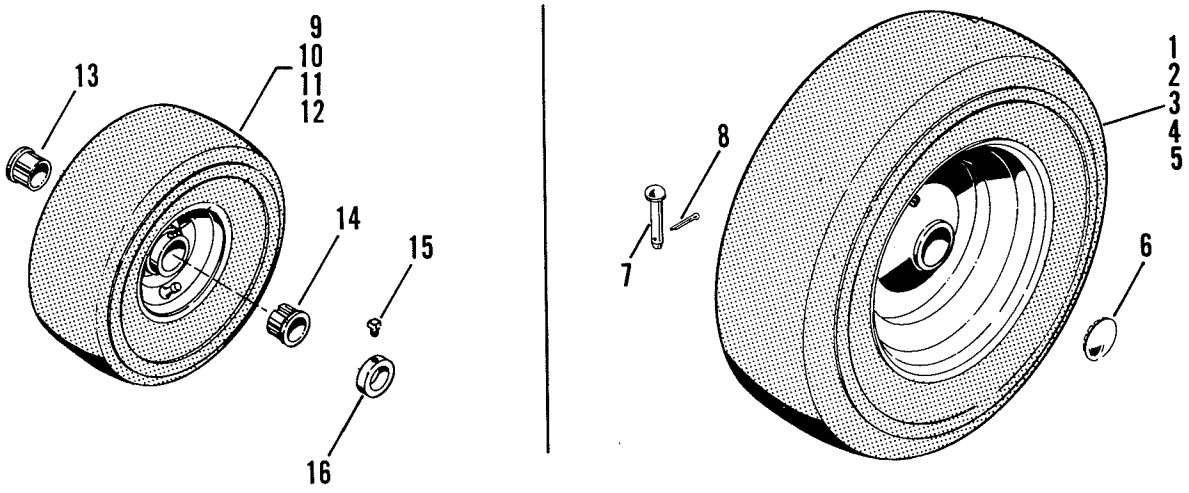
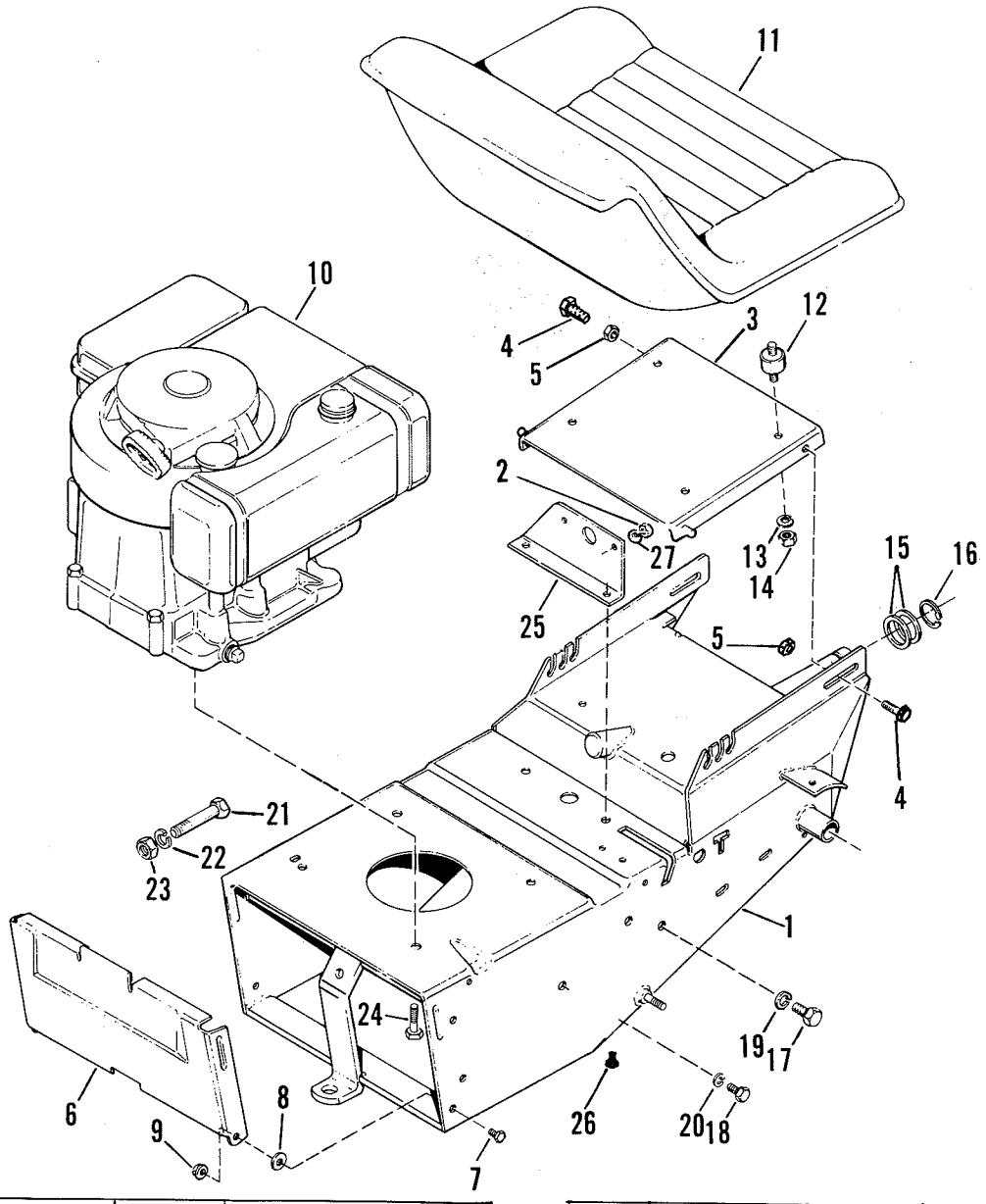
FRONT & REAR TIRES



FRONT REAR

Ref. No.	Part No.	Qty.	Description
1	171851	2	REAR WHEEL & TIRE ASSY. (Incl. Ref. Nos. 2 through 5)
2	171850	2	WHEEL ASSEMBLY
3	159156	2	TIRE, Tubeless
4	153038	2	TUBE
5	171270	2	CAP, Valve Stem
6	158433	2	BUTTON, Plug
7	118053	2	PIN
8	918451	2	PIN, Cotter, 1/8" x 3/4" lg.
9	1608374	2	FRONT WHEEL & TIRE ASSY. (Incl. Ref. Nos. 10 through 14)
10	1608380	2	WHEEL
11	163108	2	TIRE
12	163109	2	TUBE
13	163110	4	BEARING
14	163111	4	RELIEF, Bearing
15	928691	2	SCREW, Set, 5/16"-18 X 5/16" lg.
16	8021010	2	COLLAR, Set

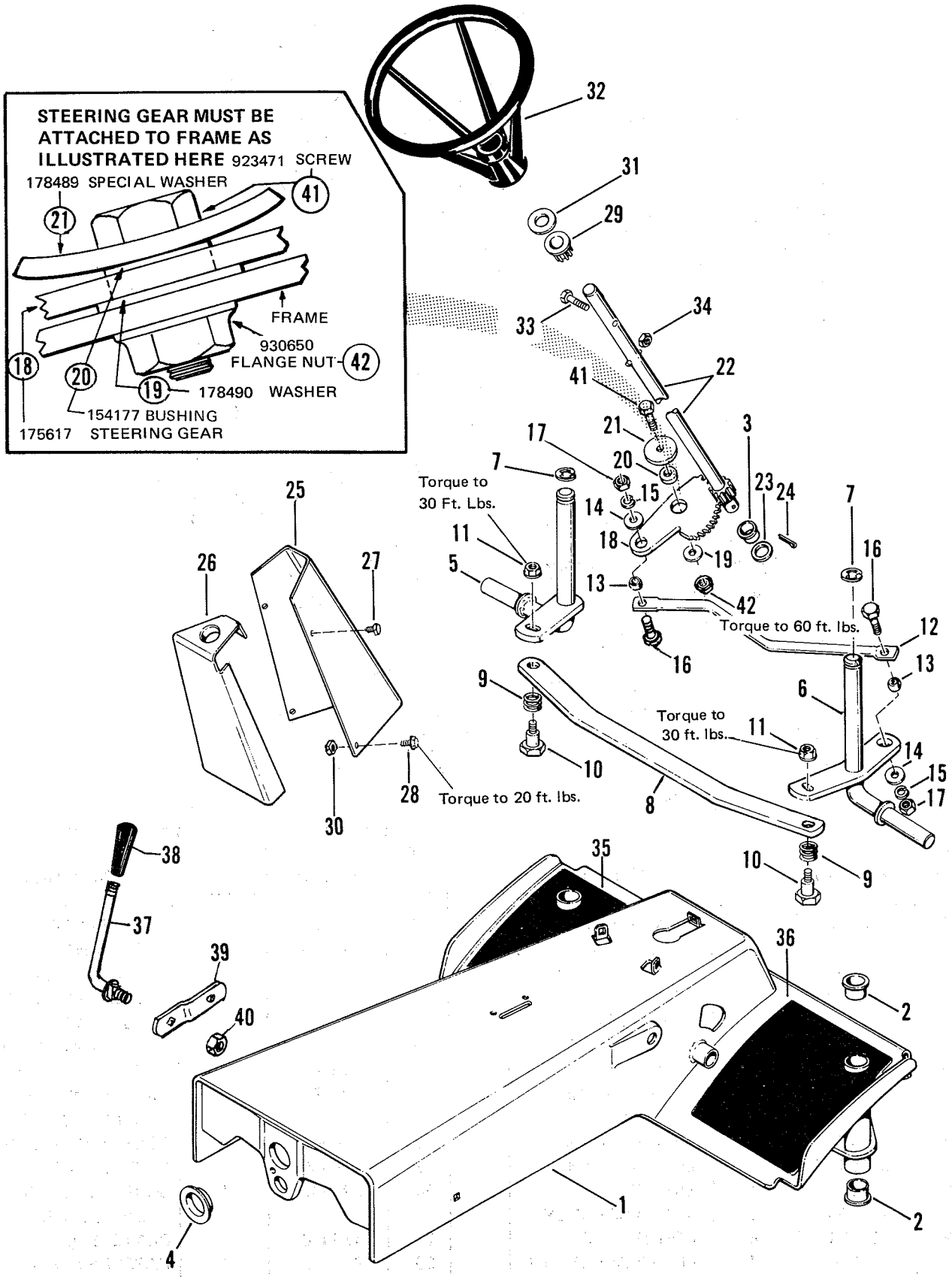
REAR FRAME & SEAT



Ref. No.	Part No.	Qty.	Description
1	1654677	1	REAR FRAME ASSY.
2	917378	2	NUT, hex,full,5/16-18
3	1652305	1	SEAT PLATE ASSY.
4	918228	2	CAPSCREW, 3/8-16 x 5/8
5	930645	2	LOCKNUT, 3/8-16
6	1652314	1	COVER, Rear
7	907727	2	CAPSCREW, Hex, 1/4-20 x 5/8"
8	166161	2	WASHER, nylon
9	930642	2	LOCKNUT, 1/4-20
10	177975	1	ENGINE
11	176495	1	SEAT ASSEMBLY
12	157094	4	CONNECTOR
13	917356	4	LOCKWASHER, 5/16
14	917372	4	NUT, Hex, 5/16-18
15	153088	2	WASHER

Ref. No.	Part No.	Qty.	Description
16	158396	1	RING, Retaining
17	919321	2	CAPSCREW, Hex, 7/16-14 x 3/4"
18	908127	1	CAPSCREW, Hex, 3/8-16 x 3/4"
19	918129	2	LOCKWASHER, 7/16
20	916965	1	LOCKWASHER, 3/8
21	928957	1	CAPSCREW, Hex, 3/8-16 x 2-3/4"
22	916965	1	LOCKWASHER, 3/8
23	916950	1	NUT, hex, 3/8-16
24	928635	4	SCREW, Washer head., 3/8-16 x 1-1/4"
25	176836	1	PLATE, Engine
26	928730	2	CAPSCREW, Hex, 3/8-16 x 1/2"
27	917356	2	LOCKWASHER, 5/16

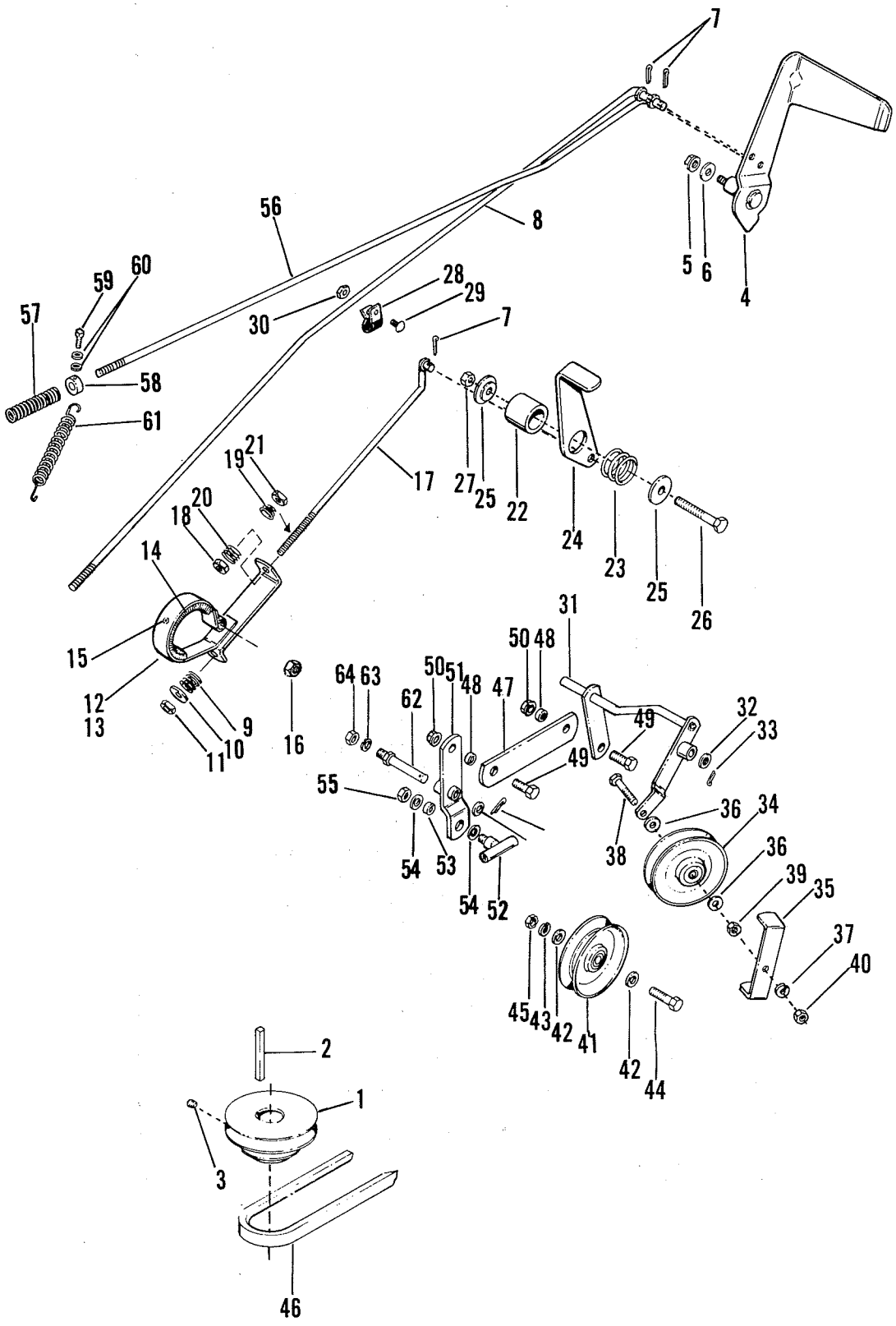
FRONT FRAME & STEERING



FRONT FRAME & STEERING

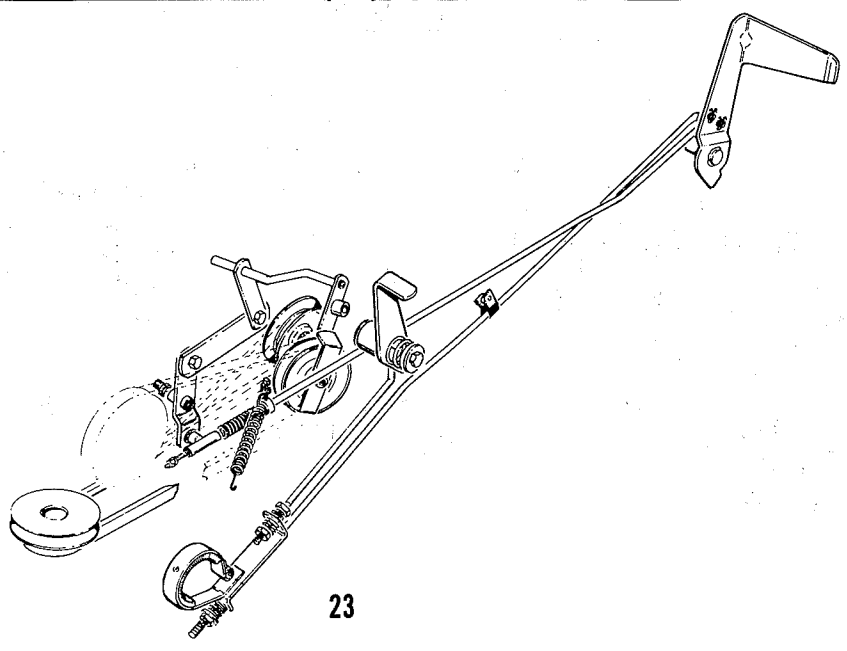
Ref. No.	Part No.	Qty.	Description
1	1652148	1	FRONT FRAME ASSEMBLY
2	176440	4	BUSHING
3	176444	3	BUSHING
4	176441	2	BUSHING, Pivot
5	1652150	1	SPINDLE, L.H.
6	1652152	1	SPINDLE, R.H.
7	157286	2	RING, Retaining
8	1652154	1	ROD, Tie
9	158578	2	SPRING
10	108412	2	BOLT, Shoulder
11	1652156	2	NUT, Flange, 3/8-26
12	175676	1	LINK, Drag
13	154177	2	SPACER
14	917642	2	WASHER, Plain, 5/16
15	916965	2	LOCKWASHER, 3/8
16	928726	2	CAPSCREW, Hex, 3/8-16 x 1-1/4 lg.
17	916950	2	NUT, Full, Hex, 3/8-16
18	1652158	1	GEAR, Steering
19	178490	1	WASHER, Special
20	176500	1	BUSHING
21	178489	1	WASHER, Special
22	175613	1	STEERING PINION ASSY.
23	121210	1	WASHER
24	920326	1	PIN, Cotter, 1/8 x 1-1/4 lg.
25	1652174	1	SUPPORT, Steering
26	1652167	1	PANEL, Rear
27	922122	3	SCREW, Self-Tapping, No. 10 x 1/2 lg.
28	930594	3	SCREW, Flange Head
29	157077	1	BUSHING
30	926022	3	NUT, Retainer
31	158223	1	WASHER, (As Required)
32	176501	1	WHEEL, Steering
33	921977	1	CAPSCREW, Hex, 5/16 -18 x 1-1/4 lg.
34	923362	1	LOCKNUT, Full hex 5/16-18
35	176809	1	PAD, Foot L.H.
36	176810	1	PAD, Foot R.H.
37	174664	1	HANDLE
38	1650149	1	KNOB
39	1650893	1	ARM ASSEMBLY
40	930645	1	NUT, Flange Hex
41	923471	1	CAPSCREW, Hex, 7/16-14 x 1-1/4
42	930650	1	LOCKNUT, Flange, 7/16-14

PULLEY–BRAKE AND CONTROL GROUP

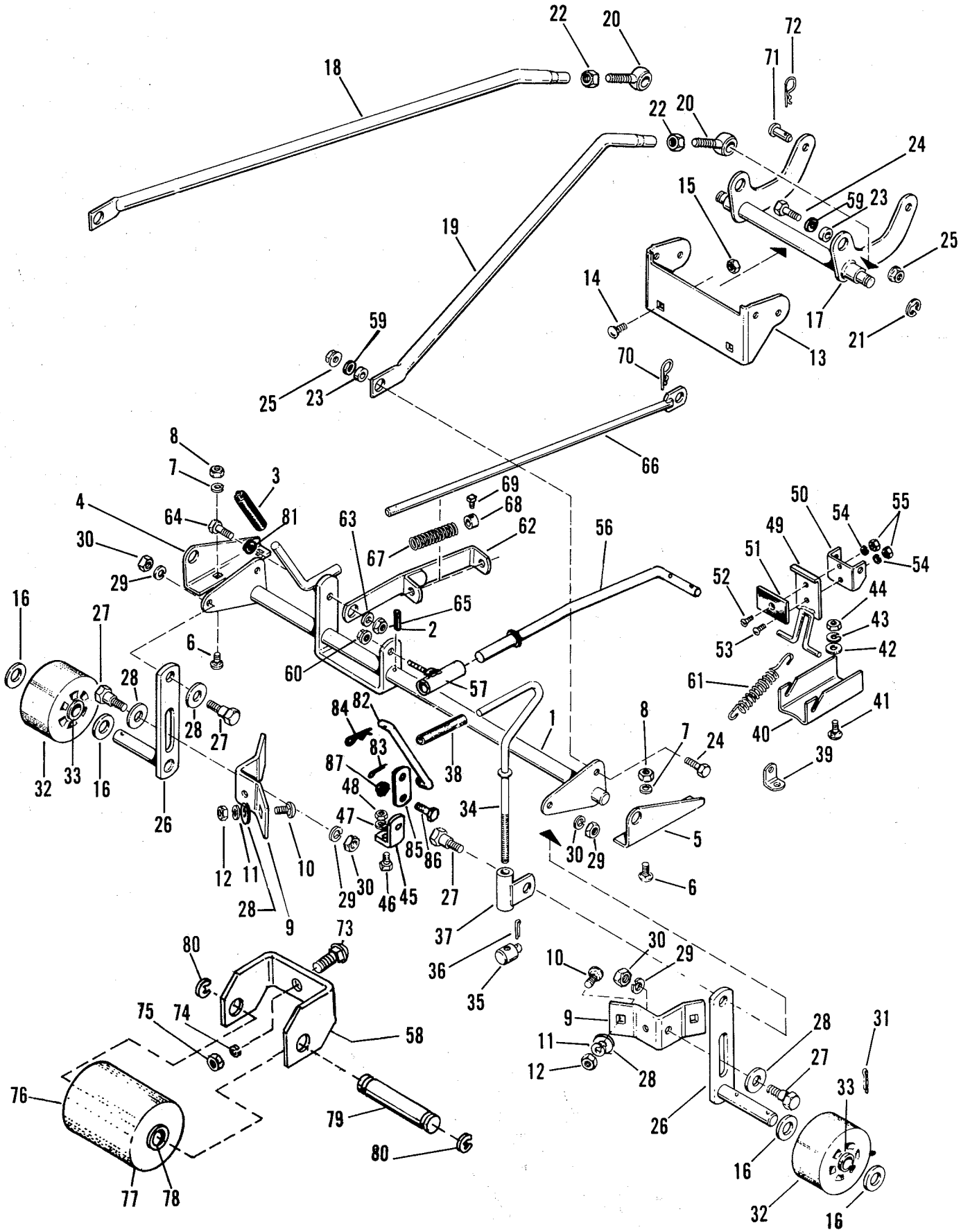


PULLEY-BRAKE AND CONTROL GROUP

Ref. No.	Part No.	Qty.	Description
1	1650229	1	PULLEY, Engine
2	159129	1	KEY
3	928621	1	SETSCREW, 5/16-18 x 5/16
4	1651126	1	PEDAL ASSY., Brake
5	930645	1	LOCKNUT, Flange, 3/8-16
6	917378	1	WASHER, Flat, 3/8
7	918447	3	PIN, Cotter, 3/32 x 3/4
8	176669	1	ROD, Brake
9	162085	1	SPRING
10	917642	1	WASHER, Flat, 5/16
11	923362	1	LOCKNUT, 5/16-18
12	176638	1	BAND ASSY., Brake
13	176861	1	BAND ASSY.Brake sub.
14	156136	1	LINING, Brake
15	928810	3	RIVET, NO. 7 x 1/4
16	930645	1	LOCKNUT, Flange,3/8-26
17	176864	1	ROD, Parking brake
18	917372	1	NUT, Hex, 5/16-18
19	153010	1	SPRING
20	8191047	1	SPRING
21	924433	1	STOP, Elastic
22	176865	1	HUB
23	153093	1	SPRING
24	176866	1	LEVER
25	1650434	2	WASHER, Special
26	919959	1	CAPSCREW, Hex, 3/8-16 x 2-3/4
27	923428	1	LOCKNUT, Hex,3/8-16
28	1222186	1	CLAMP
29	923700	1	BOLT, Round-Head, 5/16-18 x 1/2
30	929001	1	LOCKNUT,Flange,5/16-18
31	1650319	1	IDLER ARM ASSY.
32	153072	1	WASHER
33	918452	1	PIN, Cotter, 1/8 x 1
34	101096	1	PULLEY, Idler
35	1651545	1	BELT, Guide
36	917642	2	WASHER, Flat, 5/16
37	916965	1	LOCKWASHER. 3/8
38	1651074	1	CAPSCREW, Hex
39	923428	1	LOCKNUT, 3/8-16
40	916950	1	NUT, Hex, 3/8-16
41	171247	1	PULLEY, Idler
42	917642	2	WASHER, Flat, 5/16
43	916965	1	LOCKWASHER, 3/8
44	917400	1	CAPSCREW, Hex, 3/8-16 x 1-1/4
45	916950	1	NUT, Hex, 3/8-16
46	1651201	1	BELT, V
47	1650559	1	ARM, Pivot
48	153081	2	SPACER
49	919357	2	CAPSCREW, Hex, 3/8-16 x 7/8
50	930645	2	LOCKNUT,Flange,3/8-26
51	1650561	1	ARM–PIVOT ASSY
52	164094	1	GUIDE ASSY., Rod
53	156150	1	SPACER
54	917642	2	WASHER, Flat, 5/16
55	928698	1	LOCKNUT,Jam, 5/16-18
56	176667	1	ROD, Clutch
57	157041	1	SPRING, Compression
58	8191022	1	COLLAR, Set
59	930542	1	SETSCREW, 1/4-20 x 3/4
60	917377	2	WASHER, Flat, 1/4
61	156302	1	SPRING, Extension
62	106928	1	STUD
63	918199	1	LOCKWASHER, Plated, 7/16
64	918213	1	NUT, Hex, 7/16-14



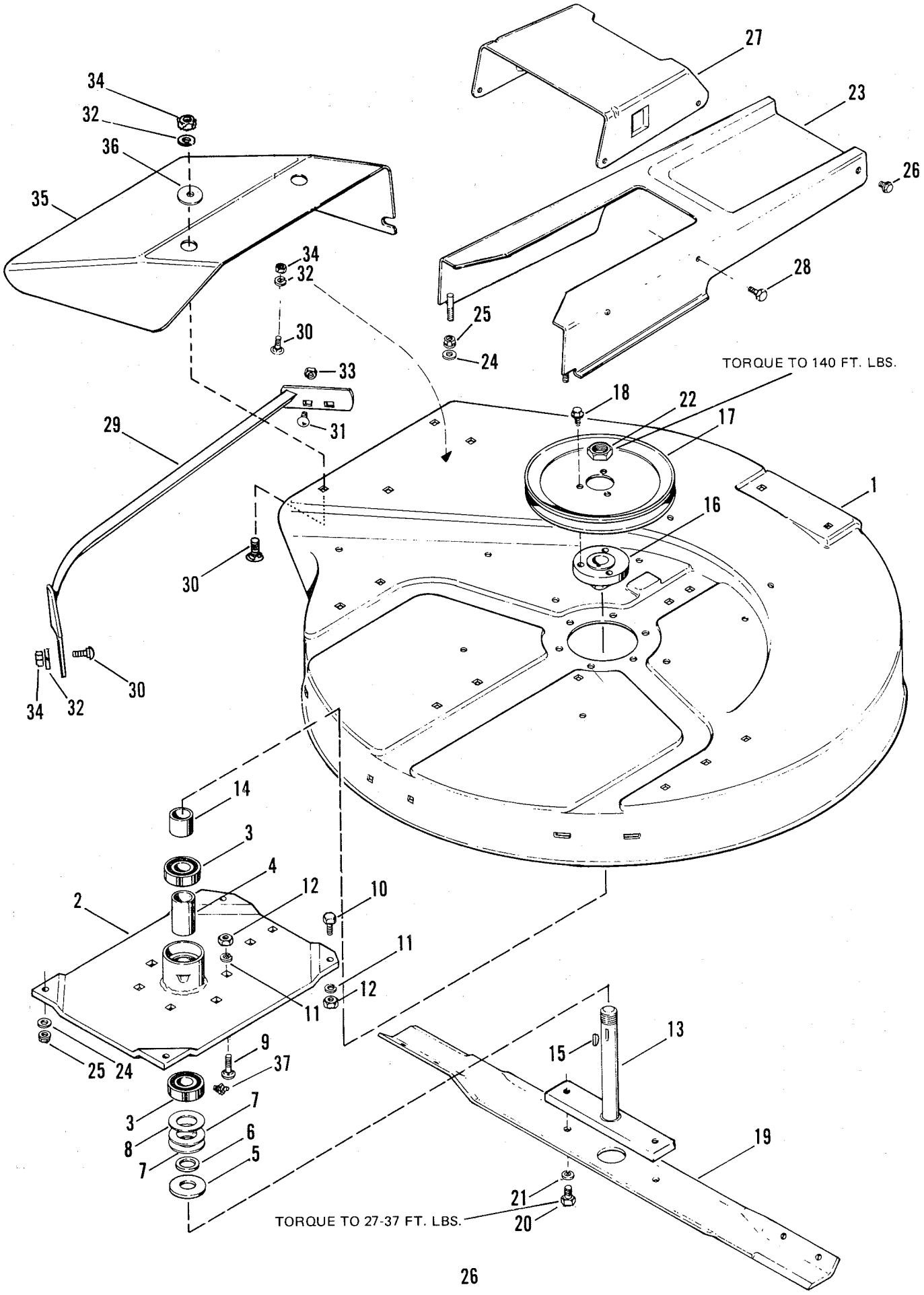
MOWER CONTROL



MOWER CONTROL

Ref. No.	Part No.	Qty.	Description
1	1653143	1	CONTROL ARM ASSY.
2	918111	2	PIN, Roll, 1/8 x 1
3	161105	1	GRIP, Handle
4	176769	1	BRACKET, L.H. Pivot
5	176770	1	BRACKET, R.H. Pivot
6	930685	4	BOLT, Carriage, 5/16-18 x 5/8 lg.
7	917356	4	LOCKWASHER, 5/16
8	917372	4	NUT, full hex, 5/16-18
9	1611118	2	SUPPORT, Roller brake
10	930658	4	BOLT, Carriage,
11	917356	4	LOCKWASHER, 5/16
12	917372	4	NUT, full hex, 5/16-18
13	1611650	1	BRACKET, Fr. Mower
14	930591	2	SCREW, Whiz lock, 5/16-18 x 3/4
15	927557	2	NUT, flange, 5/16-18
16	177351	4	WASHER
17	1653133	1	ROCKER ARM ASSY.
18	1653162	1	ARM, L.H. Adjusting
19	1653163	1	ARM, R.H. Adjusting
20	157215	2	EYEBOLT
21	158399	2	RING, Retaining
22	919262	2	NUT, hex jam, 1/2-20
23	153081	4	SPACER
24	921210	4	CAPSCREW, Hex, 3/8-16 x 1 lg.
25	923428	4	LOCKNUT, 3/8-16
26	1611121	2	ROLLER SUPP. ASSY.
27	1602186	4	BOLT, Shoulder
28	918430	6	WASHER, Plain, 7/16
29	916965	4	LOCKWASHER, 3/8
30	916950	4	NUT, full hex, 3/8-16
31	918458	4	PIN, cotter, 3/16 x 1
32	1603206	2	ROLLER ASSEMBLY, (incl. 2 of Ref. No. 33)
33	108419	4	BUSHING
34	176775	1	HANDLE
35	108172	1	PIVOT
36	918448	1	PIN, cotter, 3/32 x 1
37	1653599	1	ROD GUIDE ASSY.
38	176985	1	GRIP
39	1602446	2	ANCHOR, Spring
40	1653159	1	BRACKET, Pivot
41	921158	2	BOLT, Carriage,
42	917642	2	WASHER, Plain, 5/16
43	917356	2	LOCKWASHER, 5/16
44	917372	2	NUT, full hex, 5/16-18
45	1650140	1	BRACKET
46	919318	1	CAPSCREW, Hex, 5/16-18 x 5/8 lg.
47	917356	1	LOCKWASHER, 5/16
48	917372	1	NUT, full hex,5/16-18
49	176783	1	BRAKE SUPPORT ASSY.
50	1653161	1	ANCHOR, Brake Rod
51	1610590	1	SHEAVE, Brake
52	926267	1	SCREW, flat hd. mach. No. 10-24 x 5/8 lg.
53	916080	1	SCREW, Rd., Hd. Mach. No. 10-24 x 1/2 lg.
54	917356	2	LOCKWASHER, No. 10
55	916621	2	NUT, hex, No. 10-24
56	178547	1	ROD, Brake
57	178548	1	ROD GUIDE ASSY.
58	1611097	1	BRACKET, Ctr. Roller
59	917378	4	WASHER, Flat, 3/8
60	923428	1	LOCKNUT, 3/8-16
61	1602894	2	SPRING
62	176743	1	ROD GUIDE ASSY.
63	153081	1	SPACER
64	907731	1	CAPSCREW, Hex 3/8-16 x 1 lg.
65	923428	1	LOCKNUT, 3/8-16
66	176874	1	CLUTCH ROD ASSY.
67	162065	1	SPRING
68	105201	1	COLLAR, Set
69	928804	1	SCREW, Set, 1/4-20 x 3/8 lg.
70	8161045	1	CLIP, Hairpin
71	156306	2	PIN
72	106788	3	CLIP, Spring
73	930685	2	BOLT, Carriage, 5/16-18 x 5/8
74	917356	2	LOCKWASHER, 5/16
75	917372	2	NUT, Hex, 5/16-18
76	108431	1	ROLLER ASSEMBLY
77	108178	1	ROLLER
78	108419	1	BUSHING
79	1603205	1	SHAFT, Ctr. Roller
80	1602155	2	RING, "E"
81	917378	1	WASHER, Flat, 3/8
82	1650645	1	ROD
83	922000	1	PIN, cotter, 3/32 x 5/8
84	106787	1	CLIP, Hairpin
85	108199	1	LINK
86	917397	1	CAPSCREW, 5/16-18 x 3/4
87	923362	1	LOCKNUT, 5/16-18

MOWER HOUSING

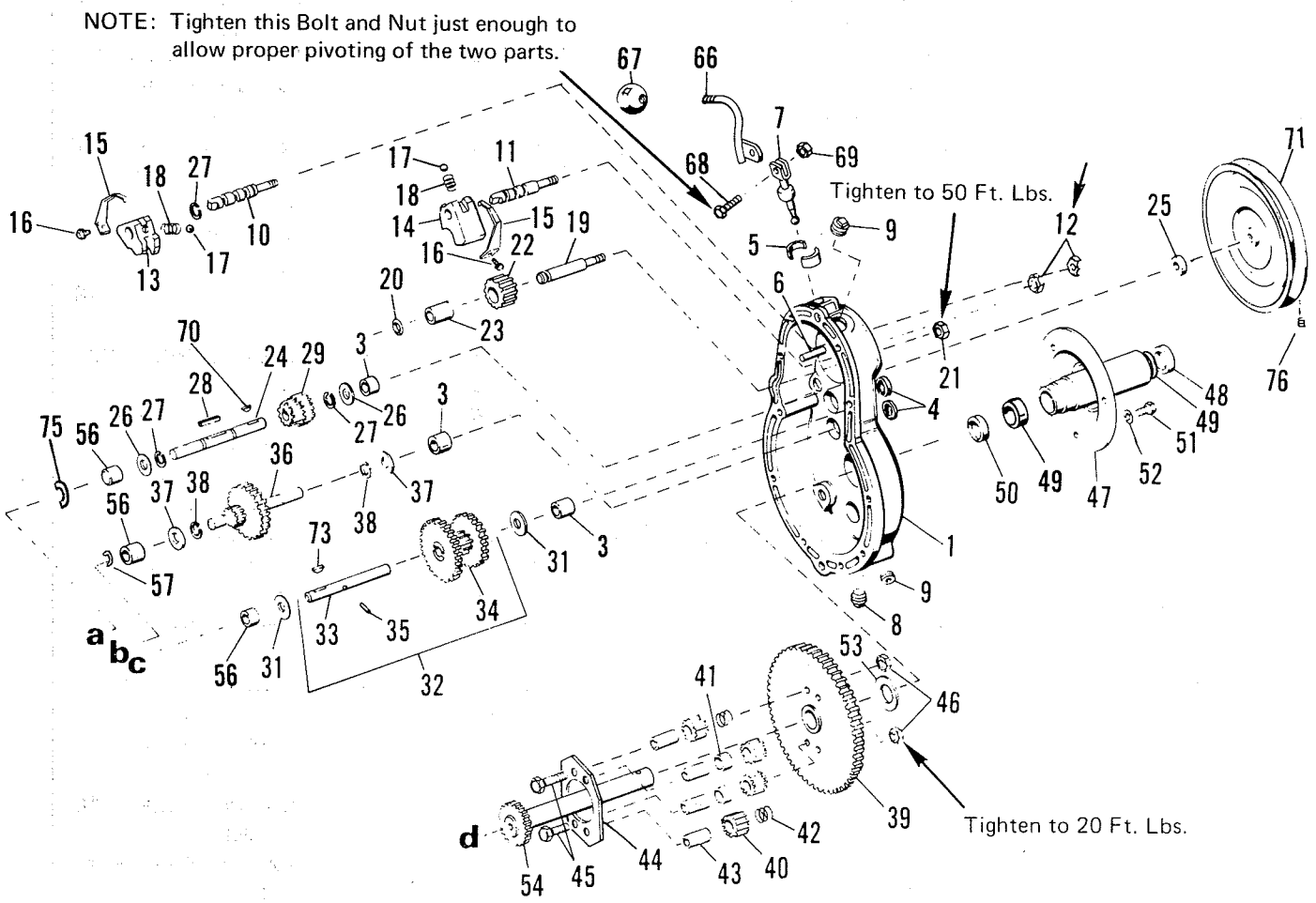


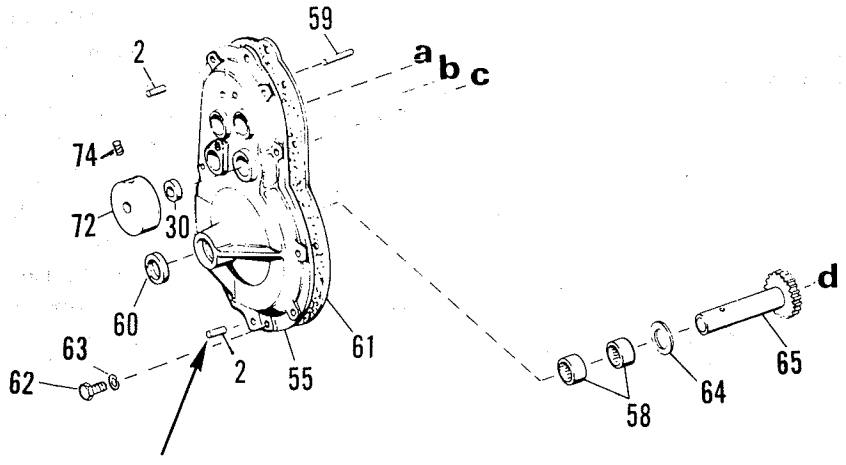
MOWER HOUSING

Ref. No.	Part No.	Qty.	Description
1	1608351	1	30"MOWER HOUSING
2	1651298	1	ARBOR TUBE ASSY.
3	108202	2	BEARINGS, Ball
4	176984	1	SPACER
5	108182	1	WASHER, Arbor
6	108181	1	WASHER
7	108472	2	WASHER
8	108257	1	WASHER
9	921158	6	BOLT, Carriage, 5/16-18 x 1" lg.
10	916431	2	CAPSCREW, Hex 5/16-18 x 1" lg.
11	917356	8	LOCKWASHER, 5/16
12	917372	8	NUT, Full hex, 5/16-18
13	1651293	1	ARBOR ASSEMBLY
14	1651295	1	SPACER
15	918312	1	KEY
16	1651404	1	HUB, Pulley
17	1653600	1	PULLEY
18	177932	3	SCREW, Thread forming 3/8-16 x 3/4 lg.
19	1651297	1	30" BLADE
20	922262	2	CAPSCREW, Hex, 3/8-16 x 7/8
21	916965	2	LOCKWASHER, 3/8
22	922133	1	NUT, Hex jam, 3/4-16
23	1611652	1	LOWER COVER ASSY.
24	917642	4	WASHER, Plain, 5/16
25	929001	4	NUT, Flange, 5/16
26	928730	2	CAPSCREW, Hex, 3/8-16 x 1/2 lg.
27	1611653	1	COVER, Upper
28	927428	2	SCREW, Taptite 1/4-20 x 3/8
29	1653132	1	STONE GUARD ASSY.
30	923346	6	BOLT, Carriage, 5/16-18 x 3/4 lg.
31	923700	2	BOLT, Carriage, 5/16-18 x 1/2 lg.
32	917356	7	LOCKWASHER, 5/16
33	928698	2	LOCKNUT, Jam,5/16-18
34	917372	7	NUT, Full hex, 5/16-16
35	1611647	1	DEFELCTOR
36	8161199	2	WASHER, Special
37	921133	1	FITTING, Grease

TRANSMISSION

CAUTION! Do not loosen under any circumstance unless dis-assembling transmission completely!

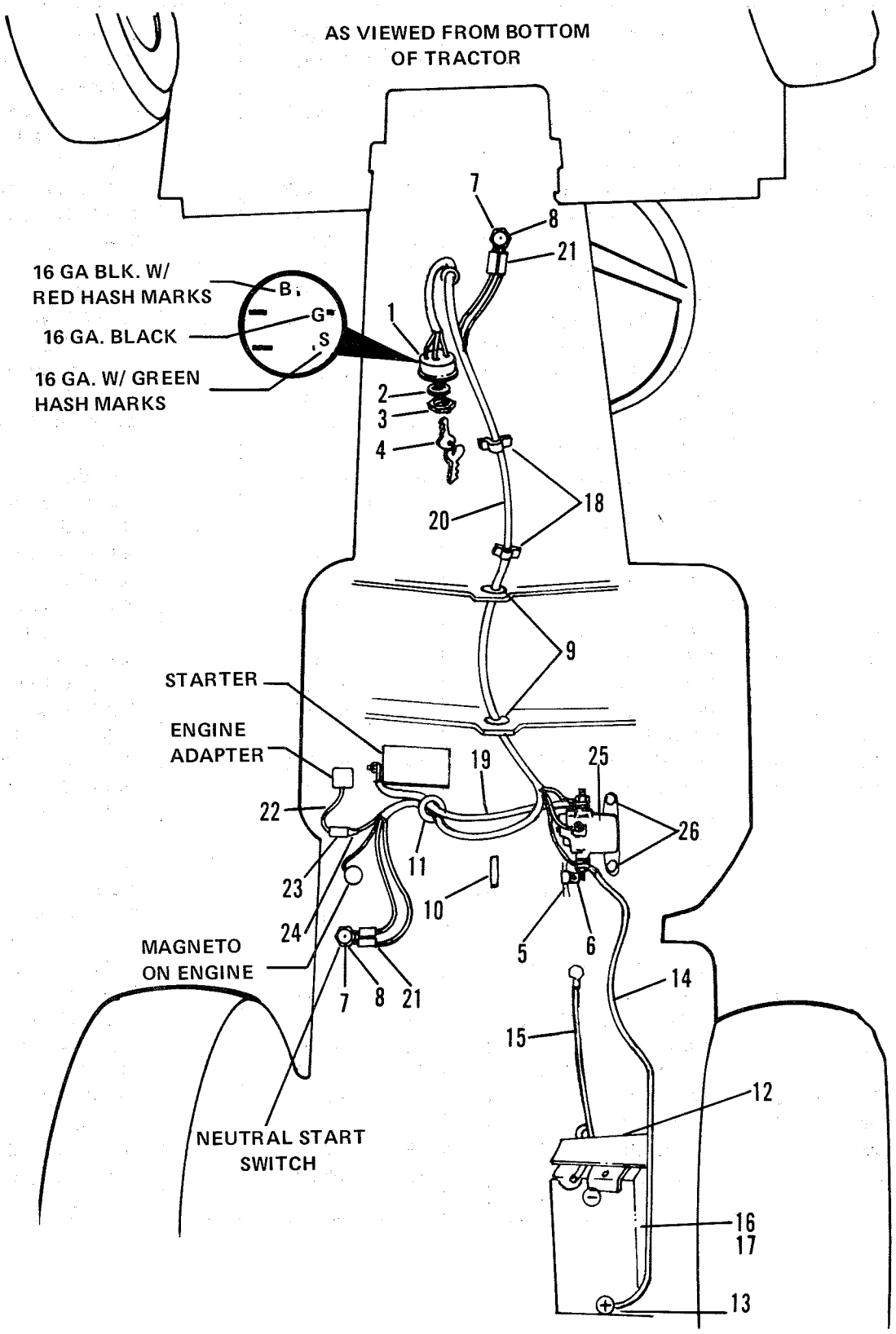

NOTE: Tighten this Bolt and Nut just enough to allow proper pivoting of the two parts.
Tighten to 50 Ft. Lbs.
Tighten to 20 Ft. Lbs.



DRIVE-IN ROLL PINS BEFORE TIGHTENING FLANGE SCREWS (for alignment)

Ref. No.	Part No.	Qty.	Description
1	163094	1	GEAR CASE, w/plugs pins-bushings (Includes 2,3,4,5,6 &7)
2	918113	2	PIN, Roll,3/8x 1"
3	163022	3	BUSHING
4	163050	2	PLUG, Expansion
5	101042	2	BUSHING, Ball, Half
6	156308	1	PIN, Roll, 5/16 x 1-1/2
7	156031	1	SHIFT ROD ASSY.
8	901653	1	PLUG, Pipe, 3/8-steel
9	930676	2	PLUG, Pipe, 3/4-plastic
10	171365	1	SHAFT, Reverse shift,-Lo
11	171372	1	SHAFT, Hi-Lo Shift
12	918213	2	NUT, Full Hex, 7/16-14
13	171363	1	FORK, Reverse Shift
14	171364	1	FORK, I & II Shift
15	171342	2	SPRING
16	930614	2	SCREW, Washer-hd., 5/16-18 x 5/16
17	154262	2	BALL, Shift lock
18	171456	2	SPRING
19	165005	1	SHAFT, Reverse Pinion
20	165006	1	RING, "O"
21	918213	1	NUT, 7/16-14
22	165007	1	PINION, Reverse
23	156082	1	BEARING, Roller
24	1650233	1	SHAFT, Pulley, PTO
25	156084	1	SEAL, Oil
26	156085	2	WASHER
27	8061048	2	RING, Retaining
28	170453	1	KEY
29	156087	1	PINION ASSY.,Hi-Lo
30	156084	1	SEAL, Oil
31	156089	2	WASHER
32	165009	1	SHAFT & GEAR ASSY.
33	165010	1	SHAFT, Brake
34	165011	1	GEAR CLUSTER ASSY.
35	156292	1	PIN, Dowel
36	165013	1	GEAR & SHAFT ASSY.
37	156085	2	WASHER
38	8061048	2	RING, Retaining
39	175328	1	DRIVE GEAR ASSY.
40	158579	4	PINION, Differential
41	121084	2	SPACER, Differential
42	162085	2	SPRING
43	121083	4	SPINDLE, Differential Pinion
44	156002	1	PLATE, Differential
45	921972	4	CAPSCREW, Hex, 3/8-16 x 2-1/2
46	923428	4	LOCKNUT, 3/8-16 NC
47	177811	1	AXLE HSG. ASSY.
48	163012	1	SEAL, Oil
49	163021	2	BUSHING
50	156099	1	SEAL, Oil
51	919357	3	CAPSCREW, Hex, 3/8-16 x 7/8
52	916965	3	LOCKWASHER, 3/8
53	175311	1	WASHER
54	175312	1	AXLE SHAFT ASSY., R.H.
55	1650433	1	COVER, Gear Case, Sub-Assembly
56	163022	3	BUSHING
57	163050	1	PLUG, Expansion
58	105195	2	BEARING, Roller
59	156308	1	PIN, Roll Assy., 5/16 x 1-1/2
60	163012	1	SEAL, Oil
61	156103	1	CASE, Gasket
62	907729	10	CAPSCREW, Hex, 5/16-18 x 1-1/4
63	917356	10	LOCKWASHER, 5/16
64	175311	1	WASHER
65	175314	1	AXLE SHAFT ASSY. L.H.
66	1650323	1	SHIFT LEVER ASSY.
67	8021050	1	KNOB, Ball
68	916019	1	CAPSCREW, Hex, 1/4-20 x 3/4
69	923358	1	LOCKNUT, 1/4-20
70	905123	1	KEY, 3/16 x 3/4 dia.
71	106214	1	PULLEY, Transmission
72	165067	1	DRUM, Brake
73	930669	1	KEY, 5/32 x 5/8 dia.
74	930554	1	SETSCREW, 5/16-18 x 5/16 lg.
75	163074	1	PLUG, Expansion
76	929277	1	SETSCREW, 3/8-16 x x 3/8

ELECTRICAL STARTER

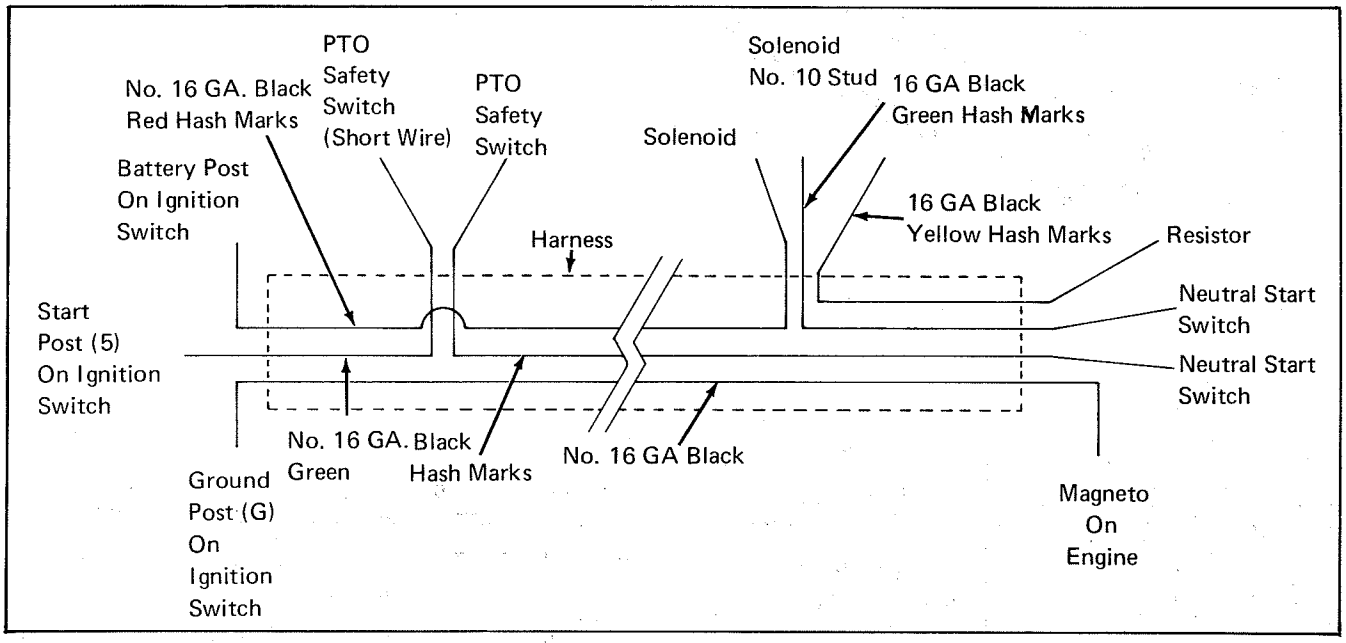


ELECTRICAL STARTER

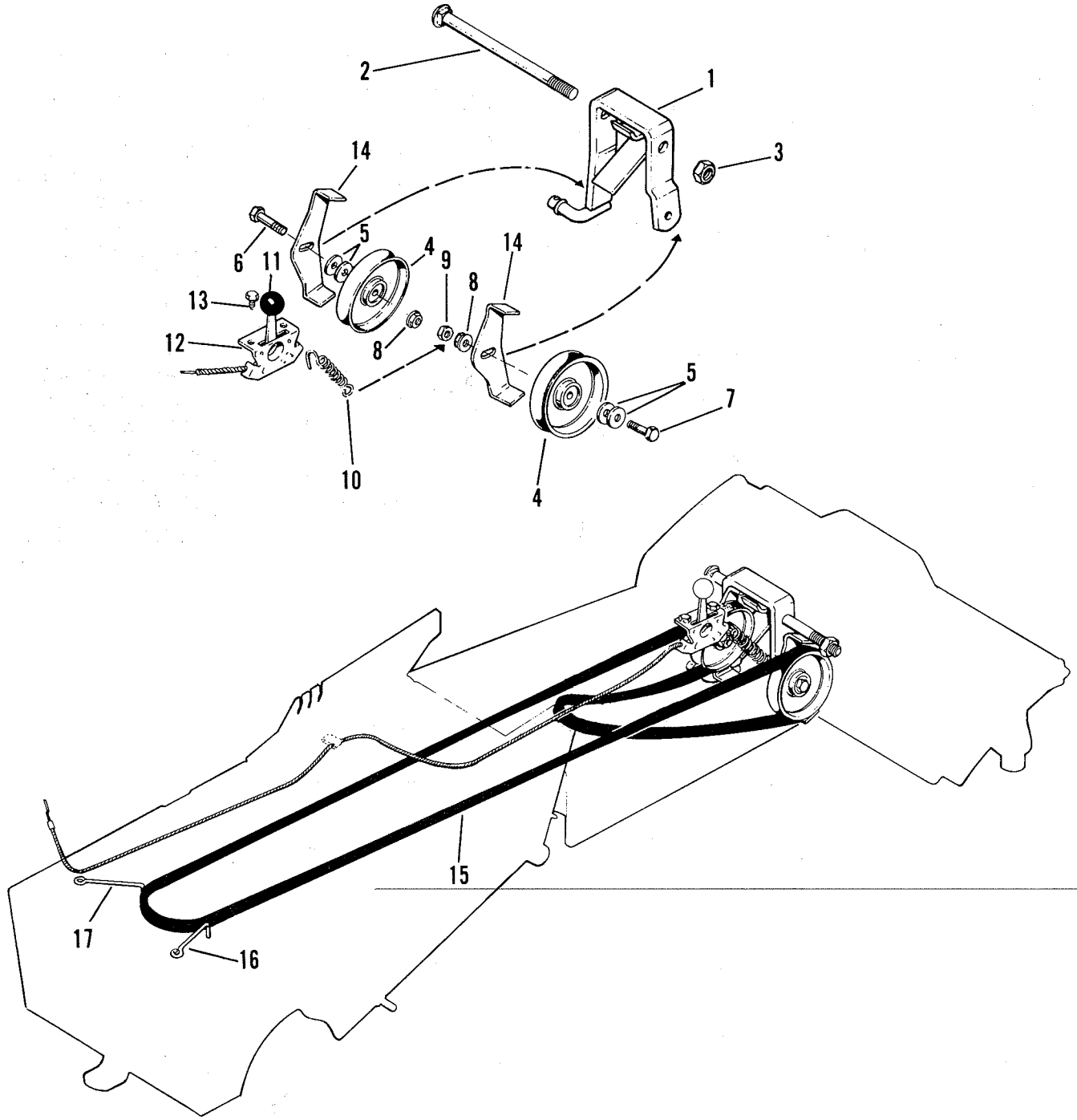
Ref. No.	Part No.	Qty.	Description
1	178280	1	SWITCH, Ignition
2	918906	1	LOCKWASHER, int., 5/8
3	122234	1	NUT, Special
4	122203	1	KEY & RING ASSY.
5	154247	1	CLAMP, Throttle cable
6	929000	1	SCREW, Thread-forming
7	177522	2	SWITCH, Safety
8	930647	3	NUT, Pal, 9/16-18
9	176883	2	GROMMET
10	1651124	1	GROMMET
11	1650793	1	GROMMET
12	176623	1	SUPPORT ASSEMBLY, Battery
13	172744	1	STRAP, Rubber

Ref. No.	Part No.	Qty.	Description
14	177981	1	CABLE ASSEMBLY, battery to solenoid
15	176975	1	CABLE ASSEMBLY, neg. battery to ground
16	177390	1	BATTERY & CLIP ASSY.
17	174648	1	BATTERY
18	176912	2	CLIP, Wire
19	177982	1	CABLE ASSEMBLY, solenoid to starter
20	1650862	1	WIRING HARNESS
21	1651222	2	CONNECTOR, Body
22	178172	1	WIRE ASSEMBLY
23	178171	1	RESISTOR
24	930612	2	SCREW, Thread-forming
25	122216	1	SOLENOID
26	929000	2	SCREW, Thread-forming

WIRING HARNESS DIAGRAM


PTO Safety Switch (Short Wire)
PTO Safety Switch
Solenoid No. 10 Stud
16 GA Black Green Hash Marks
No. 16 GA. Black Red Hash Marks
Battery Post On Ignition Switch
Solenoid
16 GA Black Yellow Hash Marks
Resistor
Harness
Neutral Start Switch
Start Post (5) On Ignition Switch
Neutral Start Switch
No. 16 GA. Black Green
No. 16 GA Black Hash Marks
No. 16 GA Black
Ground Post (G) On Ignition Switch
Magneto On Engine

P.T.O. & THROTTLE ASSEMBLY

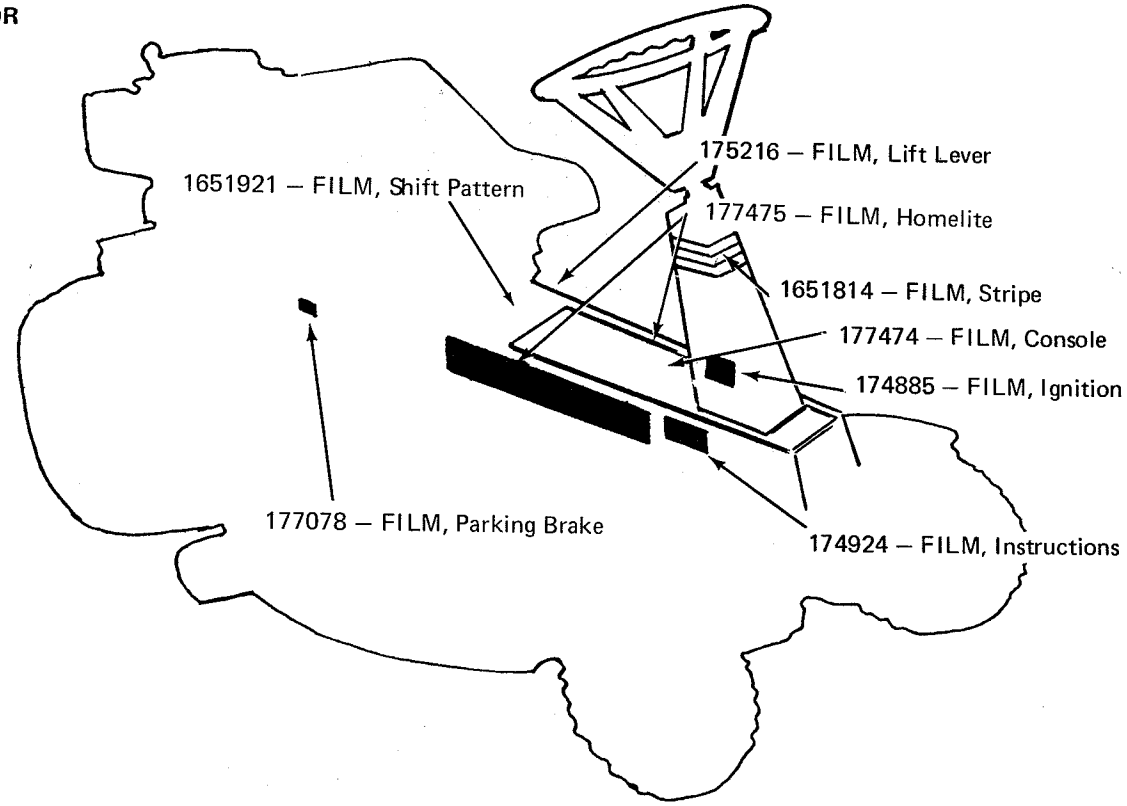


Ref. No.	Part No.	Qty.	Description
1	1652301	1	PTO BRACKET ASSY.
2	927375	1	BOLT, Carriage, 1/2-13 x 8
3	930664	1	LOCKNUT, 1/2-13
4	175954	2	PULLEY
5	157424	4	WASHER, Special
6	922606	1	CAPSCREW, Hex, 3/8-16 x 1-3/4
7	923701	1	CAPSCREW, Hex, 3/8-16 x 2

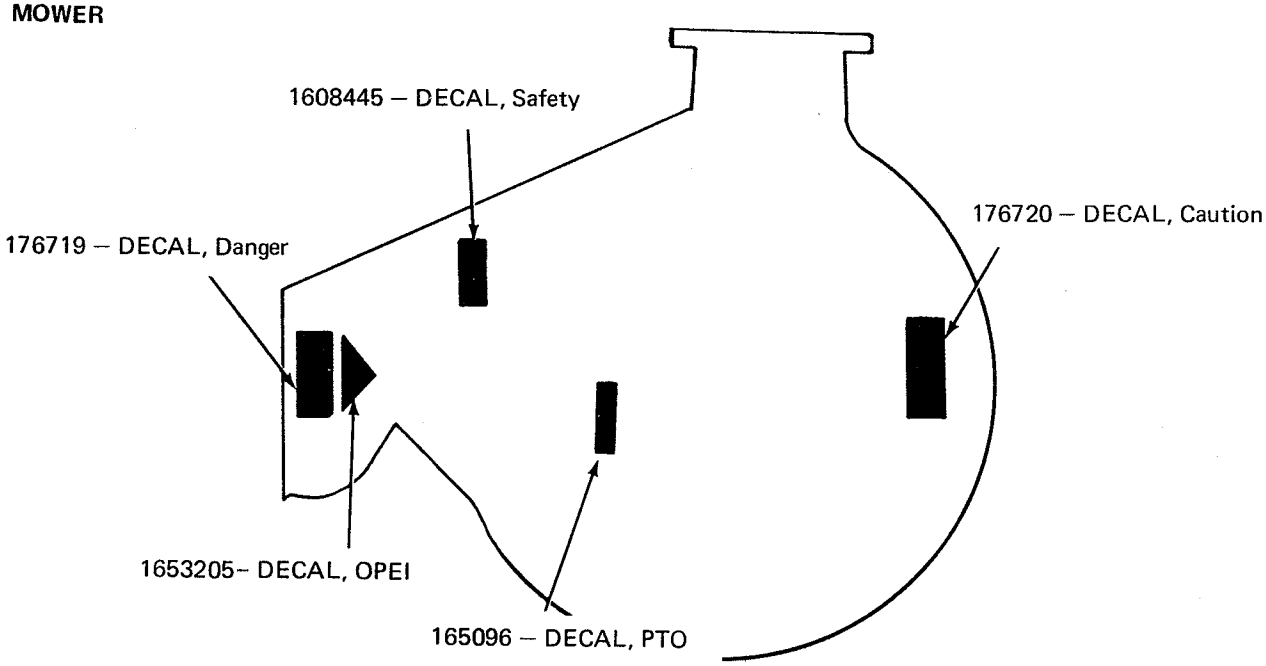
Ref. No.	Part No.	Qty.	Description
8	930645	2	LOCKNUT, 3/8-26
9	928731	1	LOCKNUT, 3/8-16
10	106681	1	SPRING
11	1653116	1	KNOB
12	176868	1	CONTROL, Throttle
13	929000	2	SCREW, Taptite, 1/4-20 x 3/8
14	176913	2	GUIDE, Belt
15	176451	1	"V" BELT
16	1650858	1	STOP, Belt
17	1650859	1	STOP, Belt

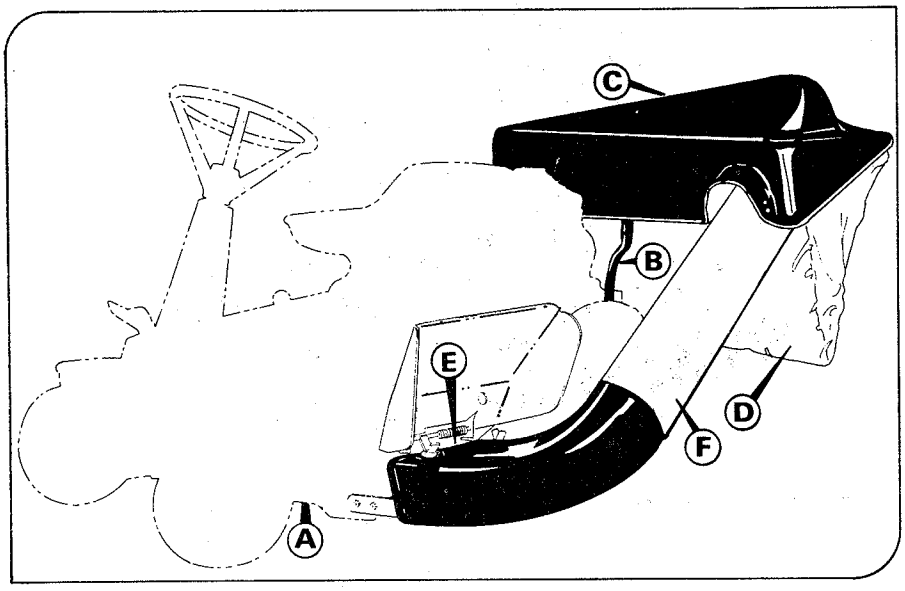
FILMS AND DECALS

TRACTOR


175216 – FILM, Lift Lever
1651921 – FILM, Shift Pattern
177475 – FILM, Homelite
1651814 – FILM, Stripe
177474 – FILM, Console
174885 – FILM, Ignition
177078 – FILM, Parking Brake
174924 – FILM, Instructions

MOWER





Assembly Instructions

For

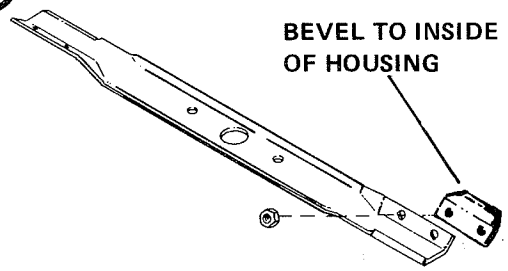
(MFG. NO. 1600383)
REAR MOUNTED GRASS CATCHER

(MFG. NO. 1600351)
FRONT WEIGHT, OPTIONAL

ASSEMBLE IN ALPHABETICAL ORDER OR AREAS

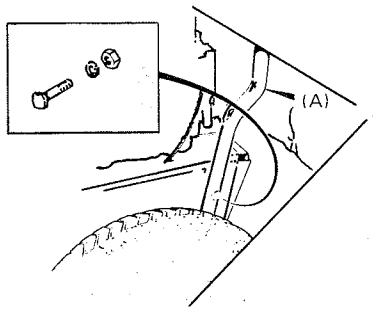
START HERE

A



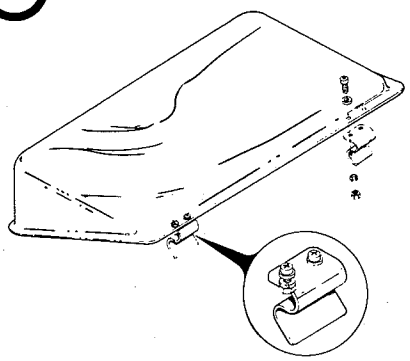
Attach the two lift plates to the mower blade with two capscrews and locknuts provided for each. Be sure bevel is to inside of housing.

B



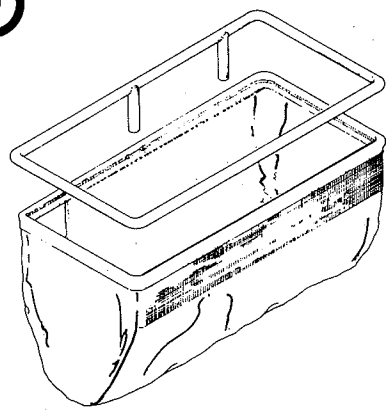
Attach the two supports (A) to rear of tractor. The holes are already stamped in the frame. Use four curved head bolts, lockwashers, and hex nuts to attach supports.

C



Next attach the four clips to the cover with eight Phillips head screws, eight washers, lockwashers and hex nuts. After this is completed the cover can be snapped onto the support assembly.

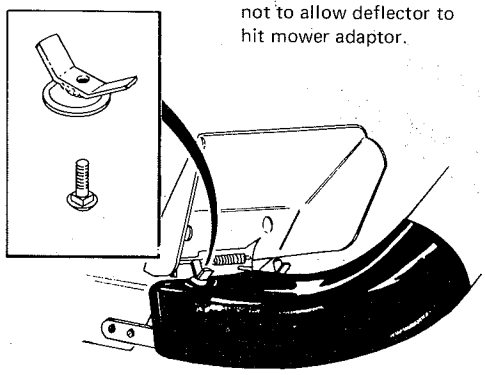
D



Attach the grass bag to the support assembly by placing the support assembly into the grass bag and zipping the zipper. When the grass bag and support assembly are together this new assembly can be placed into the vertical supports.

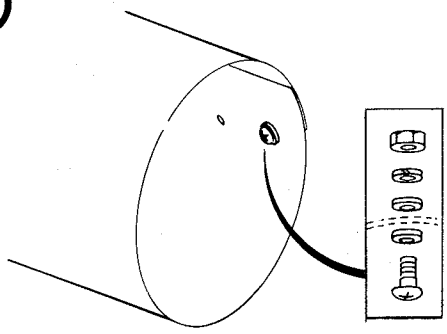
E

NOTE : After adaptor is installed adjust nut assembly so not to allow deflector to hit mower adaptor.



The deflector on the mower deck is tilted up and the adaptor is secured on mower deck using two bolts and nut assemblies.

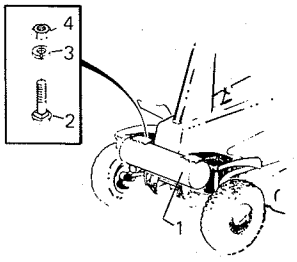
F



The discharge tube is assembled by rolling the plastic to form a tube and securing it in that form with eight Phillip head screws, lock washers, hex nuts and 16 flat washers.
The assembled discharge chute is slipped up into the grass bag assembly, then down over end of the adaptor. The unit is now ready for use.

NOTE: One front weight is recommended when using Rear Mounted Grass Catcher on slopes of 30 to 40 percent.

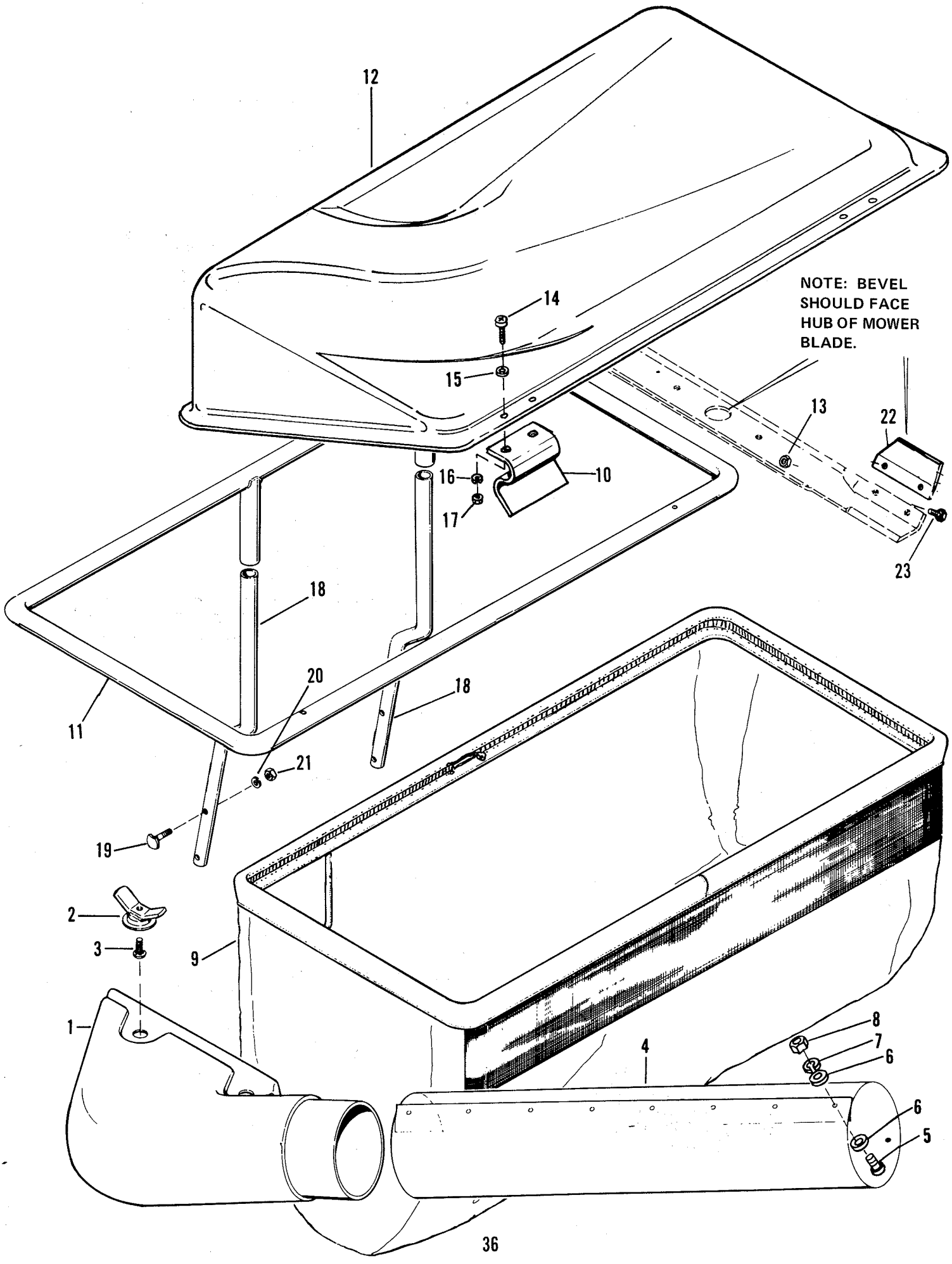
(MFG. NO. 1600351) FRONT WEIGHT, OPTIONAL



Attach counterweight assembly with two carriage bolts, lock washers and hex nuts. Holes for weight are stamped in frame and are located under rubber foot pads. After weight is installed replace rubber foot pads over the counterweight assembly.

Ref. No.	Part No.	Qty.	Description
1	177397	1	COUNTERWEIGHT ASSY.
2	923232	2	BOLT, Carriage
3	916965	2	LOCKWASHER, 3/8
4	916950	2	NUT, Hex, 3/8-16

NOTE: When it is time to remove the cut grass from the bag, lift up on rear of cover and place it aside. Then lift grass bag and support assembly up and away from discharge tube and vertical supports. Discard cut grass completely.


12
14
15
16
17
10
NOTE: BEVEL SHOULD FACE HUB OF MOWER BLADE.
13
22
23
18
18
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19
2
3
9
1
4
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7
6
6
5

Ref. No.	Part No.	Qty.	Description
1	176871	1	ADAPTOR
2	123103	2	NUT ASSY.
3	920563	2	BOLT, Carriage, 5/16-18 x 1
4	177104	1	TUBE, Discharge
5	930531	8	SCREW, Phillips hd ., 10-32 x 1/2
6	916955	16	WASHERS, Plain, 3/16
7	909055	8	LOCKWASHER, No. 10
8	917415	8	NUT, full hex, 10-32
9	177086	1	BAG, Grass
10	178609	4	CLIPS
11	178364	1	SUPPORT ASSY.
12	177019	1	COVER
13	923362	4	LOCKNUT, Full hex, 5/16-18
14	930531	8	SCREW, Phillips hd., 10-32 x 1/2
15	916955	8	WASHER, Plain, 3/16
16	909055	8	LOCKWASHER, No. 10
17	917415	8	NUT, full hex, 10-32
18	177096	2	SUPPORT, Vertical
19	177249	4	BOLT, Curved head
20	917356	4	LOCKWASHER, 5/16
21	917372	4	NUT, full hex, 5/16-18
22	177243	2	PLATE, Lift
23	925205	4	LOCKNUT, Full hex 5/16-18